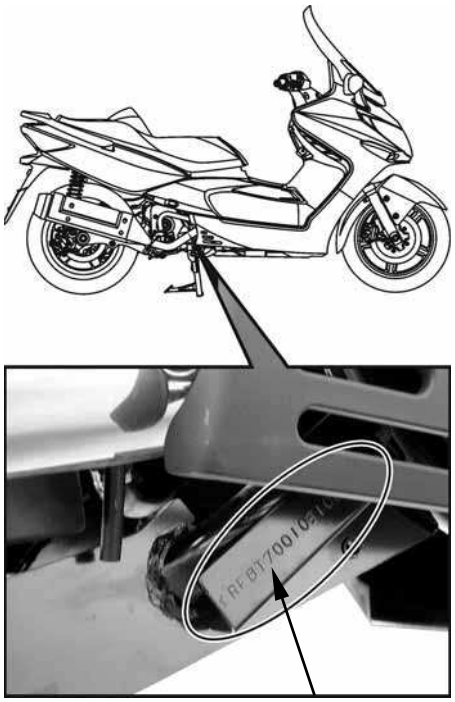
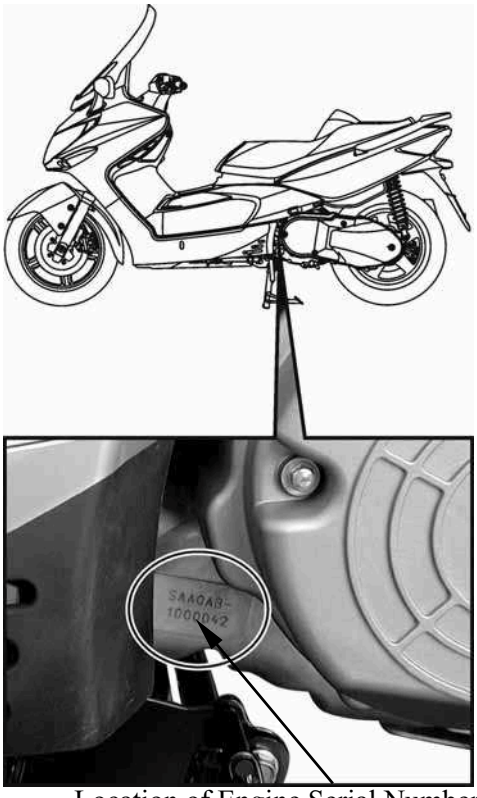
GENERAL INFORMATION

SERIAL NUMBER ---------- 1 - 1
SPECIFICATIONS (XCITING 500) ---------- 1 - 2
SPECIFICATIONS (XCITING 500 AFI) ---------- 1 - 3
SPECIFICATIONS (XCITING 250) ---------- 1 - 4
SPECIFICATIONS (XCITING 250 AFI) ---------- 1 - 5
SERVICE PRECAUTIONS ---------- 1 - 6
TORQUE VALUES ---------- 1-10
SPECIAL TOOLS ---------- 1-14
LUBRICATION POINTS ---------- 1-15
CABLE & HARNESS ROUTING (XCITING 500) ---------- 1-17
CABLE & HARNESS ROUTING (XCITING 500 AFI) ---------- 1-27
CABLE & HARNESS ROUTING (XCITING 250) ---------- 1-35
CABLE & HARNESS ROUTING (XCITING 250 AFI) ---------- 1-43
TROUBLESHOOTING (XCITING 500/250) ---------- 1-51
TROUBLESHOOTING (XCITING 500 AFI/250 AFI) ---------- 1-62

SERIAL NUMBER



Location of Frame Serial Number



Location of Engine Serial Number

SPECIFICATIONS (XCITING 500)

ITEM			SPECIFICATIONS
Name			**XCITING 500**
Overall length			2250 mm (90 in)
Overall width			815 mm (33 in)
Overall height			1450 mm (58 in)
Wheel base			1570 mm (63 in)
Engine type			O.H.C.
Displacement			498.5 cm^3 (30.4 cu-in)
Fuel Used			92# nonleaded gasoline
Dry weight		Front wheel	83 kg (183 lbs)
		Rear wheel	132 kg (290 lbs)
		Total	215 kg (473 lbs)
Curb weight		Front wheel	90 kg (198 lbs)
		Rear wheel	141 kg (310 lbs)
		Total	231 kg (508 lbs)
Tires		Front wheel	120/70-15
		Rear wheel	150/70-14
Ground clearance			150 mm (6 in)
Min. turning radius			2750 mm (110 in)
Engine	Starting system		Electric starter motor
	Type		Gasoline, 4-stroke
	Cylinder arrangement		Single cylinder
	Combustion chamber type		Semi-sphere
	Valve arrangement		O.H.C., chain drive
	Bore x stroke		92 x 75 mm (3.7 x 3 in)
	Compression ratio		10.5:1
	Compression pressure		13 kgf/cm² (1300kPa, 185 psi)
	Intake valve	Open	2° BTDC
		Close	45° ABDC
	Exhaust valve	Open	45° BBDC
		Close	5° ATDC
	Valve clearance (cold)	Intake	0.1 mm (0.004 in)
		Exhaust	0.1 mm (0.004 in)
	Idle speed		1400 rpm
	Lubrication System: Lubrication type		Forced pressure & Wet sump
	Lubrication System: Oil pump type		Trochoid
	Lubrication System: Oil filter type		Full-flow filtration
	Lubrication System: Oil capacity		2.5 L (2.2 Imp qt, 2.65 Us qt)
	Lubrication System: Final reduction oil capacity		0.55 L (0.5 Imp qt, 0.58 Us qt)
	Cooling Type		Liquid cooled

ITEM			SPECIFICATIONS
Fuel System	Air cleaner type & No		Wet paper type element
	Fuel capacity		12.8 L (3.38 Imp gal, 2.82 US gal
	Carburetor: Type		CVK
	Carburetor: Main jet NO.		98
	Carburetor: Venturi dia.		ϕ36 mm (ϕ1.44 in)
	Carburetor: Throttle type		PISTON
Electrical Equipment	Ignition System: Type		Full transistor ignition
	Ignition System: Spark plug		CR8E
	Ignition System: Ignition timing		Throttle position sensor
	Ignition System: Spark plug gap		0.6～0.7mm (0.002～0.003 in)
	Battery	Capacity	12V12AH
Power Drive System	Clutch	Type	Dry, centrifugal automatic
	Transmission Gear	Type	Helical gear/spur gear
	Transmission Gear	Operation	Automatic centrifugal Type
	Reduction Ratio	Type	CVT
	Reduction Ratio	Preliminary	2.68 – 1
	Reduction Ratio	Final	5.4
Moving Device	FR/RR tire rolling circumference		1724/1778 mm (69/71 in)
	Tire pressure (rider only/60 kg)	Front	2 kg/cm² (200 Kpa, 28 psi)
	Tire pressure (rider only/60 kg)	Rear	2.5 kg/cm² (250 Kpa, 36 psi)
	Turning angle	Left	40°
	Turning angle	Right	40°
Brake system type		Rear	Disk brake
		Front	Disk brake
Damping Device	Suspension type	Front	Telescopic fork
	Suspension type	Rear	Unit swing
Frame type			Back born

SPECIFICATIONS (XCITING 500 AFI)

ITEM			SPECIFICATIONS
Name			**XCITING 500 AFI**
Overall length			2250 mm (90 in)
Overall width			815 mm (33 in)
Overall height			1450 mm (58 in)
Wheel base			1570 mm (63 in)
Engine type			O.H.C.
Displacement			498.5 cm^3 (30.4 cu-in)
Fuel Used			92# nonleaded gasoline
Dry weight		Front wheel	83 kg (183 lbs)
		Rear wheel	132 kg (290 lbs)
		Total	215 kg (473 lbs)
Curb weight		Front wheel	90 kg (198 lbs)
		Rear wheel	141 kg (310 lbs)
		Total	231 kg (508 lbs)
Tires		Front wheel	120/70-15
		Rear wheel	150/70-14
Ground clearance			150 mm (6 in)
Min. turning radius			2750 mm (110 in)
Engine	Starting system		Electric starter motor
	Type		Gasoline, 4-stroke
	Cylinder arrangement		Single cylinder
	Combustion chamber type		Semi-sphere
	Valve arrangement		O.H.C., chain drive
	Bore x stroke		92 x 75 mm (3.7 x 3 in)
	Compression ratio		10.5:1
	Compression pressure		13 kgf/cm^2 (1300kPa, 185 psi)
	Intake valve	Open	5° BTDC
		Close	45° ABDC
	Exhaust valve	Open	45° BBDC
		Close	5° ATDC
	Valve clearance (cold)	Intake	0.1 mm (0.004 in)
		Exhaust	0.1 mm (0.004 in)
	Idle speed		1400 rpm
	Lubrication System	Lubrication type	Forced pressure & Wet sump
		Oil pump type	Trochoid
		Oil filter type	Full-flow filtration
		Oil capacity	2.5 L (2.2 Imp qt, 2.65 Us qt)
		Final reduction oil capacity	0.55 L (0.5 Imp qt, 0.58 Us qt)
	Cooling Type		Liquid cooled

ITEM				SPECIFICATIONS
Fuel System	Air cleaner type & No			Wet paper type element
	Fuel capacity			12.8 L (3.38 Imp gal, 2.82 US gal
	Throttle Body Venturi dia			ϕ40 mm (ϕ1.6 in)
Electrical Equipment	Ignition System	Type		Full transistor ignition
		Spark plug		CR7E
		Ignition timing		ECU
		Spark plug gap		0.6～0.7mm (0.002～0.003 in)
	Battery	Capacity		12V12AH
Power Drive System	Clutch	Type		Dry, centrifugal automatic
	Transmission Gear	Type		Helical gear/spur gear
		Operation		Automatic centrifugal Type
	Reduction Ratio	Type		CVT
		Preliminary		2.68 – 1
		Final		5.4
Moving Device	FR/RR tire rolling circumference			1724/1778 mm (69/71 in)
	Tire pressure (rider only/60 kg)		Front	2 kg/cm^2 (200 Kpa, 28 psi)
			Rear	2.5 kg/cm^2 (250 Kpa, 36 psi)
	Turning angle		Left	40°
			Right	40°
Brake system type			Rear	Disk brake
			Front	Disk brake
Damping Device	Suspension type		Front	Telescopic fork
			Rear	Unit swing
Frame type				Back born

SPECIFICATIONS (XCITING 250)

ITEM			SPECIFICATIONS
Name			**XCITING 250**
Overall length			2250 mm (90 in)
Overall width			815 mm (33 in)
Overall height			1450 mm (58 in)
Wheel base			1570 mm (63 in)
Engine type			O.H.C.
Displacement			251/249.1 cm^3 (15.3/15.8 cu-in)
Fuel Used			92# nonleaded gasoline
Dry weight		Front wheel	75 kg (165 lbs)
		Rear wheel	110 kg (242 lbs)
		Total	185 kg (407 lbs)
Curb weight		Front wheel	81 kg (178 lbs)
		Rear wheel	119 kg (262 lbs)
		Total	200 kg (440 lbs)
Tires		Front wheel	120/70-15
		Rear wheel	150/70-14
Ground clearance			170 mm (6.8 in)
Min. turning radius			2600 mm (104 in)
Engine	Starting system		Electric starter motor
	Type		Gasoline, 4-stroke
	Cylinder arrangement		Single cylinder
	Combustion chamber type		Semi-sphere
	Valve arrangement		O.H.C., chain drive
	Bore x stroke		72.7 x 60 mm (2.908 x 2.4 in)
	Compression ratio		10.3:1
	Compression pressure		15 kgf/cm² (1500kPa, 213 psi)
	Intake valve	Open	9° BTDC
		Close	45° ABDC
	Exhaust valve	Open	38° BBDC
		Close	10° ATDC
	Valve clearance (cold)	Intake	0.1 mm (0.004 in)
		Exhaust	0.1 mm (0.004 in)
	Idle speed		1600 rpm
	Lubrication System	Lubrication type	Forced pressure & Wet sump
		Oil pump type	Trochoid
		Oil filter type	Full-flow filtration
		Oil capacity	1.1 L (0.97 Imp qt, 1.17 Us qt)
		Final reduction oil capacity	0.2 L (0.18 Imp qt, 0.21 Us qt)
	Cooling Type		Liquid cooled

ITEM				SPECIFICATIONS
Fuel System	Air cleaner type & No			Wet paper type element
	Fuel capacity			12.8 L (3.38 Imp gal, 2.82 US gal
	Carburetor	Type		CVK
		Main jet NO.		94
		Venturi dia.		ϕ30 mm (ϕ1.2 in)
		Throttle type		PISTON
Electrical Equipment	Ignition System	Type		Full transistor ignition
		Spark plug		DPR7EA-9
		Ignition timing		Throttle position sensor
		Spark plug gap		0.6～0.7mm (0.002～0.003 in)
	Battery	Capacity		12V10AH
Power Drive System	Clutch	Type		Dry, centrifugal automatic
	Transmission Gear	Type		Helical gear/spur gear
		Operation		Automatic centrifugal Type
	Reduction Ratio	Type		CVT
		Preliminary		0.83 – 2.2
		Final		8.72
Moving Device	FR/RR tire rolling circumference			1724/1778 mm (69/71 in)
	Tire pressure (rider only/60 kg)		Front	2 kg/cm² (200 Kpa, 28 psi)
			Rear	2.5 kg/cm² (250 Kpa, 36 psi)
	Turning angle		Left	40°
			Right	40°
Brake system type			Rear	Disk brake
			Front	Disk brake
Damping Device	Suspension type		Front	Telescopic fork
			Rear	Unit swing
Frame type				Back born

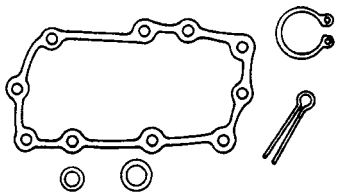
SPECIFICATIONS (XCITING 250 AFI)

ITEM			SPECIFICATIONS
Name			**XCITING 250 AFI**
Overall length			2250 mm (90 in)
Overall width			815 mm (33 in)
Overall height			1450 mm (58 in)
Wheel base			1570 mm (63 in)
Engine type			O.H.C.
Displacement			251/249.1 cm^3 (15.3/15.8 cu-in)
Fuel Used			92# nonleaded gasoline
Dry weight		Front wheel	75 kg (165 lbs)
		Rear wheel	110 kg (242 lbs)
		Total	185 kg (407 lbs)
Curb weight		Front wheel	81 kg (178 lbs)
		Rear wheel	119 kg (262 lbs)
		Total	200 kg (440 lbs)
Tires		Front wheel	120/70-15
		Rear wheel	150/70-14
Ground clearance			170 mm (6.8 in)
Min. turning radius			2600 mm (104 in)
Engine	Starting system		Electric starter motor
	Type		Gasoline, 4-stroke
	Cylinder arrangement		Single cylinder
	Combustion chamber type		Semi-sphere
	Valve arrangement		O.H.C., chain drive
	Bore x stroke		72.7 x 60 mm (2.908 x 2.4 in)
	Compression ratio		10.6:1
	Compression pressure		15 kgf/cm² (1500kPa, 213 psi)
	Intake valve	Open	9° BTDC
		Close	40° ABDC
	Exhaust valve	Open	42° BBDC
		Close	7° ATDC
	Valve clearance (cold)	Intake	0.1 mm (0.004 in)
		Exhaust	0.1 mm (0.004 in)
	Idle speed		1600 rpm
	Lubrication System	Lubrication type	Forced pressure & Wet sump
		Oil pump type	Trochoid
		Oil filter type	Full-flow filtration
		Oil capacity	1.1 L (0.97 Imp qt, 1.17 Us qt)
		Final reduction oil capacity	0.23 L (0.2 Imp qt, 0.24 Us qt)
	Cooling Type		Liquid cooled

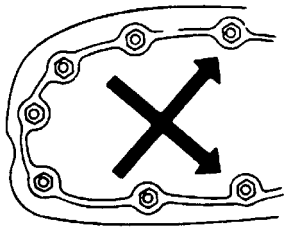
ITEM				SPECIFICATIONS
Fuel System	Air cleaner type & No			Wet paper type element
	Fuel capacity			12.8 L (3.38 Imp gal, 2.82 US gal
	Throttle Body Venturi dia			ϕ30 mm (ϕ1.2 in)
Electrical Equipment	Ignition System	Type		Full transistor ignition
		Spark plug		DPR6EA-9
		Ignition timing		ECU
		Spark plug gap		0.6～0.7mm (0.002～0.003 in)
	Battery	Capacity		12V10AH
Power Drive System	Clutch	Type		Dry, centrifugal automatic
	Transmission Gear	Type		Helical gear/spur gear
		Operation		Automatic centrifugal Type
	Reduction Ratio	Type		CVT
		Preliminary		0.83 – 2.2
		Final		8.26
Moving Device	FR/RR tire rolling circumference			1724/1778 mm (69/71 in)
	Tire pressure (rider only/60 kg)		Front	2 kg/cm² (200 Kpa, 28 psi)
			Rear	2.5 kg/cm² (250 Kpa, 36 psi)
	Turning angle		Left	40°
			Right	40°
Brake system type			Rear	Disk brake
			Front	Disk brake
Damping Device	Suspension type		Front	Telescopic fork
			Rear	Unit swing
Frame type				Back born

SERVICE PRECAUTIONS

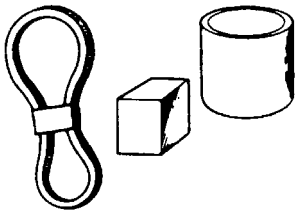
■ Make sure to install new gaskets, O-rings, circlips, cotter pins, etc. when reassembling.



■ When tightening bolts or nuts, begin with larger-diameter to smaller ones at several times, and tighten to the specified torque diagonally.



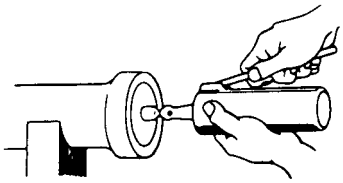
■ Use genuine parts and lubricants.



■ When servicing the motorcycle, be sure to use special tools for removal and installation.

■ After disassembly, clean removed parts. Lubricate sliding surfaces with engine oil before reassembly.

■ Apply or add designated greases and lubricants to the specified lubrication points.

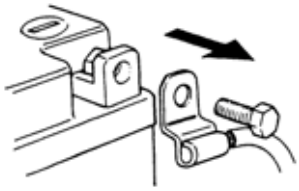


■ After reassembly, check all parts for proper tightening and operation.

■ When two persons work together, pay attention to the mutual working safety.

■ Disconnect the battery negative (-) terminal before operation.

■ When using a spanner or other tools, make sure not to damage the motorcycle surface.

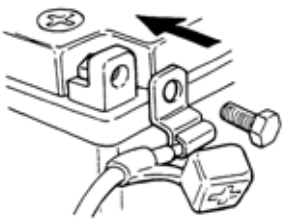


■ After operation, check all connecting points, fasteners, and lines for proper connection and installation.

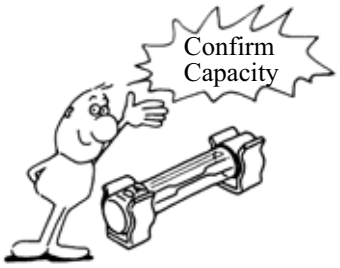
■ When connecting the battery, the positive (+) terminal must be connected first.

■ After connection, apply grease to the battery terminals.

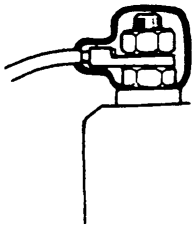
■ Terminal caps shall be installed securely.



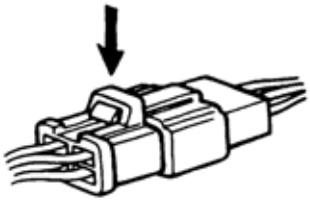
■ If the fuse is burned out, find the cause and repair it. Replace it with a new one according to the specified capacity.



■ After operation, terminal caps shall be installed securely.

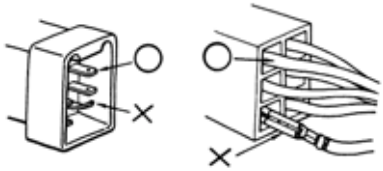


■ When taking out the connector, the lock on the connector shall be released before operation.

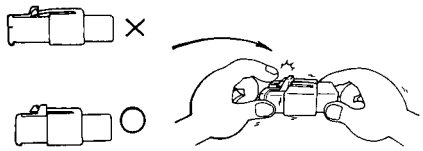


■ Hold the connector body when connecting or disconnecting it.
■ Do not pull the connector wire.

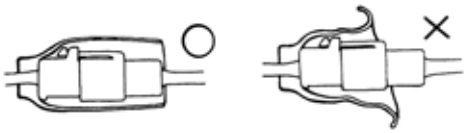
■ Check if any connector terminal is bending, protruding or loose.



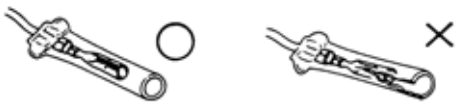
■ The connector shall be inserted completely.
■ If the double connector has a lock, lock it at the correct position.
■ Check if there is any loose wire.



■ Before connecting a terminal, check for damaged terminal cover or loose negative terminal.

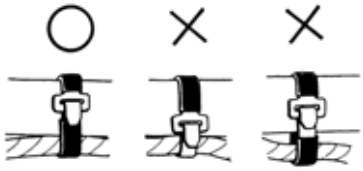


■ Check the double connector cover for proper coverage and installation.

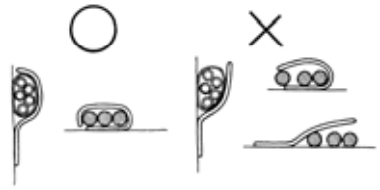


■ Insert the terminal completely.
■ Check the terminal cover for proper coverage.
■ Do not make the terminal cover opening face up.

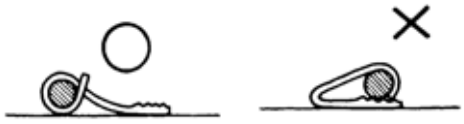
■ Secure wire harnesses to the frame with their respective wire bands at the designated locations.
Tighten the bands so that only the insulated surfaces contact the wire harnesses.



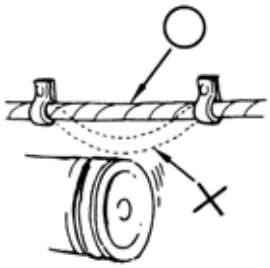
■ After clamping, check each wire to make sure it is secure.



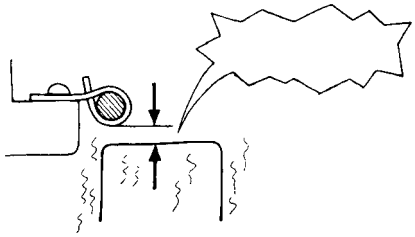
■ Do not squeeze wires against the weld or its clamp.



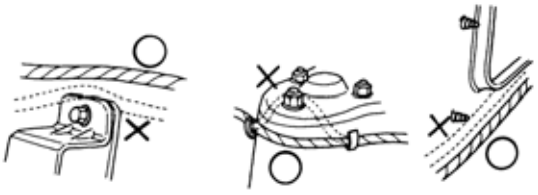
■ After clamping, check each harness to make sure that it is not interfering with any moving or sliding parts.



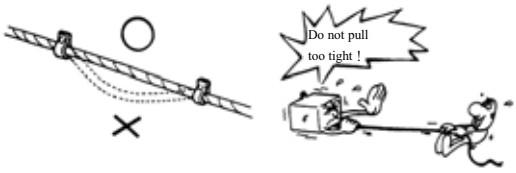
■ When fixing the wire harnesses, do not make it contact the parts which will generate high heat.



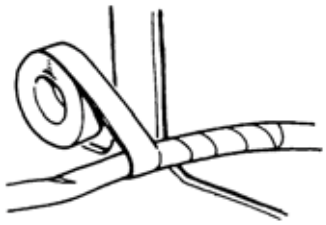
■ Route wire harnesses to avoid sharp edges or corners. Avoid the projected ends of bolts and screws.
■ Route wire harnesses passing through the side of bolts and screws. Avoid the projected ends of bolts and screws.



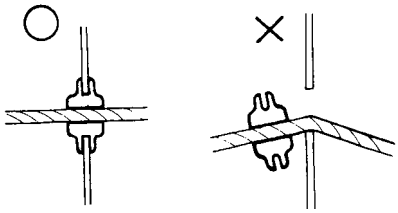
■ Route harnesses so they are neither pulled tight nor have excessive slack.



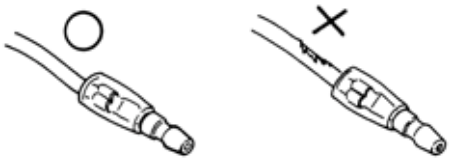
■ Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner.



■ When rubber protecting cover is used to protect the wire harnesses, it shall be installed securely.

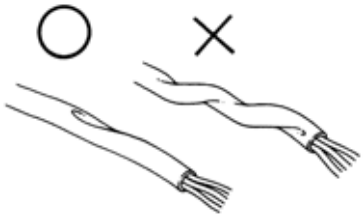


■ Do not break the sheath of wire.
■ If a wire or harness is with a broken sheath, repair by wrapping it with protective tape or replace it.

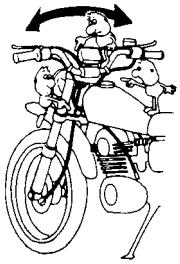


■ When installing other parts, do not press or squeeze the wires.

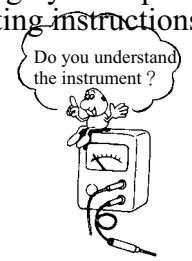
■ After routing, check that the wire harnesses are not twisted or kinked.



■ Wire harnesses routed along with handlebar should not be pulled tight, have excessive slack or interfere with adjacent or surrounding parts in all steering positions.

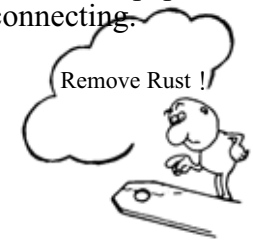


■ When a testing device is used, make sure to understand the operating methods thoroughly and operate according to the operating instructions.



■ Be careful not to drop any parts.

■ When rust is found on a terminal, remove the rust with sand paper or equivalent before connecting.



■ Symbols:

The following symbols represent the servicing methods and cautions included in this service manual.

Engine Oil

: Apply engine oil to the specified points. (Use designated engine oil for lubrication.)

Grease

: Apply grease for lubrication.

Gear Oil

: Transmission Gear Oil (90#)

* : Note

TORQUE VALUES

STANDARD TORQUE VALUES

Item	Torque N•m (kgf•m, lbf•ft)	Item	Torque N•m (kgf•m, lbf•ft)
5mm bolt and nut	5(0.5, 4)	4mm screw	3 (0.3, 2)
6mm bolt and nut	10 (1, 7)	5mm screw	4 (0.4, 3)
8mm bolt and nut	22 (2.2, 16)	6mm screw, SH bolt	9 (0.9, 6.5)
10mm bolt and nut	35 (3.5, 25)	6mm flange bolt and nut	12 (1.2, 9)
12mm bolt and nut	55 (5.5, 40)	8mm flange bolt and nut	27 (2.7, 20)
14mm bolt and nut	70 (7, 50)	10mm flange bolt and nut	40 (4, 29)

Torque specifications listed below are for important fasteners.

ENGINE (XCITING 500/XCITING 500 AFI)

Item	Q'ty	Thread dia. (mm)	Torque N•m (kgf•m, lbf•ft)	Remarks
MAINTENANCE:				
Engine oil drain plug	1	12	25 (2.5, 18)	
Oil strainer screen cap	1	30	15 (1.5, 11)	
Oil filter cartridge	1	20	10 (1, 7)	
Transmission oil drain bolt	1	8	20 (2, 15)	
Transmission oil filler bolt	1	8	20 (2, 15)	
Spark plug	1	10	12 (1.2, 9)	
Tappet adjust nut	4	5	9 (0.9, 6)	
LUBRICATION SYSTEM:				
Oil pump screw	1	4	3 (0.3, 2)	
Oil cooler bolt	2	16	35 (3.5, 25)	Apply oil
COOLING SYSTEM:				
Water pump cover bolt	2	6	13 (1.3, 9)	
CYLINDER HEAD:				
Breather separator bolt	3	6	13 (1.3, 9)	Apply oil
Cylinder head bolt (1 – 4)	4	10	48 (4.8, 35)	Apply oil
Cylinder head bolt (5 – 13)	9	8	23 (2.3, 17)	Apply oil
Cylinder head cover bolt	4	6	10 (1, 7)	
Cam chain tensioner bolt	2	6	12 (1.2, 9)	
Tensioner pivot bolt	1	8	10 (1, 7)	
Rocker arm shaft	2	18	45 (4.5, 32)	
DRIVE/DRIVEN PULLEY:				
Drive face nut	1	18	135 (13.5, 97)	Apply oil
Clutch out nut	1	14	80 (8, 58)	Apply oil

ENGINE (XCITING 500/XCITING 500 AFI) **(Cont'd)**

Item	Q'ty	Thread dia. (mm)	Torque N•m (kgf•m, lbf•ft)	Remarks
Drive plate nut	1	28	78 (7.8, 56)	
ALTERNATOR				
ACG flywheel nut	1	14	55 (5.5, 40)	
FINAL REDUCTION:				
Transmission cover bolt	8	8	27 (2.7, 20)	
CRANKCASE:				
Crankcase bolt	13	6	12 (1.2, 9)	Apply oil
Oil pipe bolt	2	16	43 (4.3, 31)	Apply oil
Cam chain guide	2	8	20 (2, 15)	
SWITCH:				
Oil pressure switch	1	PT 1/8	22 (2.2, 16)	Apply seal

ENGINE (XCITING 250/XCITING 250 AFI)

Item	Q'ty	Thread dia.(mm)	Torque N•m (kgf•m, lbf•ft)	Remarks
MAINTENANCE:				
Valve adjusting lock nut	2	5	9 (0.9, 6.5)	Apply oil
Spark plug	1	10	12 (1.2, 9)	
Transmission oil drain bolt	1	12	20 (2, 15)	
Transmission oil check/fill bolt	1	8	20 (2, 15)	
Crank case oil drain bolt	1	12	25 (2.5, 18)	
Oil filter screen cap	1	30	15 (1.5, 10.8)	Apply oil
LUBRICATION SYSTEM:				
Oil pump screw	1	3	2 (0.2, 1.4)	
COOLING SYSTEM:				
Water pump impeller	1	7	12 (1.2, 8.6)	Left screw
CYLINDER HEAD:				
Cylinder head cap nut	4	8	25 (2.5, 18)	Apply oil
Tensioner lifter bolt	1	6	4 (0.4, 3)	
Cylinder head cover bolt	4	6	12 (1.2, 8.6)	
Cam chain tensioner bolt	2	6	12 (1.2, 8.6)	

ENGINE (XCITING 250/XCITING 250 AFI) **(Cont'd)**

Item	Q'ty	Thread dia. (mm)	Torque N•m (kgf•m, lbf•ft)	Remarks
DRIVE/DRIVEN PULLEY:				
Drive face nut	1	14	93 (9.3, 67)	Apply oil
Clutch outer nut	1	12	54 (5.4, 39)	
Clutch drive plate nut	1	28	54 (5.4, 39)	
Left crankcase cover bolt	6	6	12 (1.2, 8.6)	
ALTERNATOR				
A.C.G. stator	5	5	9 (0.9, 6.5)	
Flywheel nut	1	14	55 (5.5, 40)	
FINAL REDUCTION:				
Transmission case cover bolt	9	8	20 (2, 14.4)	
CRANKCASE:				
Cam chain guide bolt	1	6	10 (1, 7)	
SWITCH:				
Oil pressure switch	1	PT 1/8	22 (2.2, 16)	Apply seal

FRAME

Item	Q'ty	Thread dia.(mm)	Torque N•m (kgf•m, lbf•ft)	Remarks
STEERING:				
Handlebar bolt	4	8	23 (2.3, 17)	
Upper pinch bolt	2	8	23 (2.3, 17)	
Lower pinch bolt	4	8	32 (3.2, 23)	
Bridge stem nut	1	22	62 (6.2, 45)	
Steering stem lock nut	1	25.4	55 (5.5, 40)	
Top thread	1	25.4	20 (2, 15)	
WHEEL:				
Front axle bolt	1	18	20 (2, 15)	
Front fork bolt	2	8	23 (2.3, 17)	
Rear axle nut (XCITING 500)	1	20	180 (18, 130)	
Rear axle nut (XCITING 250)	1	16	140 (14, 100)	
SUSPENSION:				
Rear shock absorber bolt	4	10	40 (4, 29)	
Rear fork	2	8	32 (3.2, 23)	
BRAKE:				
Front caliper mounting bolt	4	8	32 (3.2, 23)	Replace a new one
Rear caliper mounting bolt	2	8	32 (3.2, 23)	Replace a new one
Brake fluid bolt	6	10	35 (3.5, 25)	
Master cylinder bolt	4	6	12 (1.2, 9)	
ENGINE HANGER:				
Engine hanger bolt	4	10	50 (5, 36)	
Engine mounting bolt/nut (XCITING 500)	1	14	80 (8, 58)	
Engine mounting bolt/nut (XCINTING 250)	1	10	50 (5, 36)	
Engine hanger rod nut	1	10	35 (3.5, 25)	
MUFFLER				
Exhaust pipe nut	2	8	20 (2, 14)	
Muffler mount bolt	3	10	35 (3.5, 25)	

SPECIAL TOOLS

XCITING 500/XCITING 500 AFI

Tool Name	Tool No.	Remarks
Oil seal & bearing installers	A120E00014	Oil seal & bearing install
Lock nut socket wrench	A120E00015	Steering stem removal or install
Universal holder	A120E00017	Holding clutch for removal
Flywheel holder	A120E00021	A.C. generator flywheel holding
Tappet adjuster	A120E00036	Tappet adjustment
Bearing pullers	A120E00037	Bearing removal
Valve spring compressor	A120E00040	Valve removal
Oil filter cartridge wrench	A120E00052	Cartridge removal or install
Clutch spring compressor	A120E00053	Clutch disassembly
Flywheel puller	A120E00054	A.C. generator flywheel removal
Lock nut socket wrench	A120F00007	Steering stem removal or install
Steering stem top thread wrench	A120F00023	Steering stem removal or install

XCITING 250/XCITING 250 AFI

Tool Name	Tool No.	Remarks
Flywheel puller	A120E00003	A.C. generator flywheel removal
Oil seal & bearing installers	A120E00014	Oil seal & bearing install
Lock nut socket wrench	A120E00015	Steering stem removal or install
Universal holder	A120E00017	Holding clutch for removal
Flywheel holder	A120E00021	A.C. generator flywheel holding
Clutch spring compressor	A120E00034	Clutch disassembly
Tappet adjuster	A120E00036	Tappet adjustment
Bearing pullers	A120E00037	Bearing removal
Valve spring compressor	A120E00040	Valve removal
Lock nut socket wrench	A120F00007	Steering stem removal or install
Steering stem top thread wrench	A120F00023	Steering stem removal or install

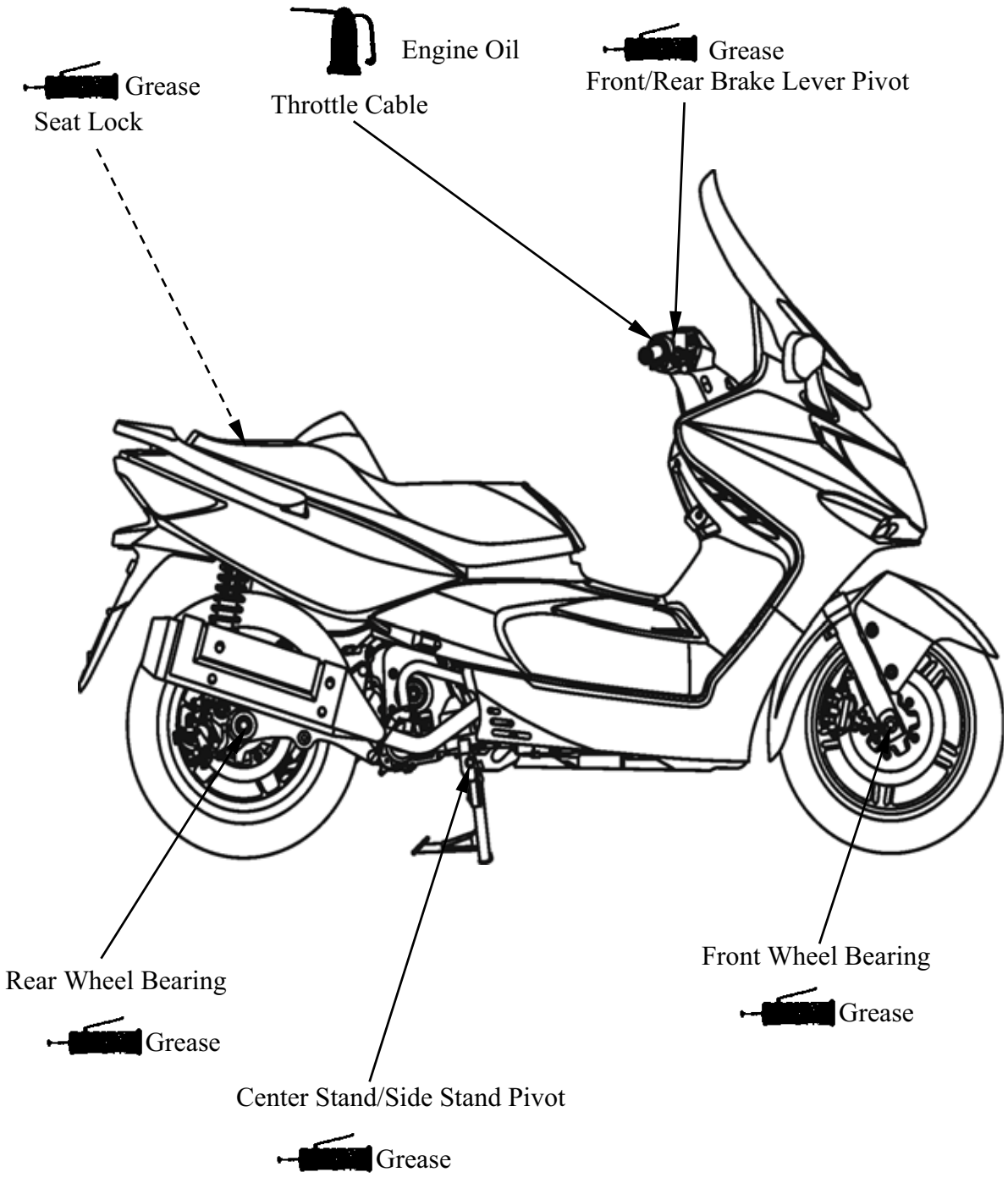
LUBRICATION POINTS

ENGINE

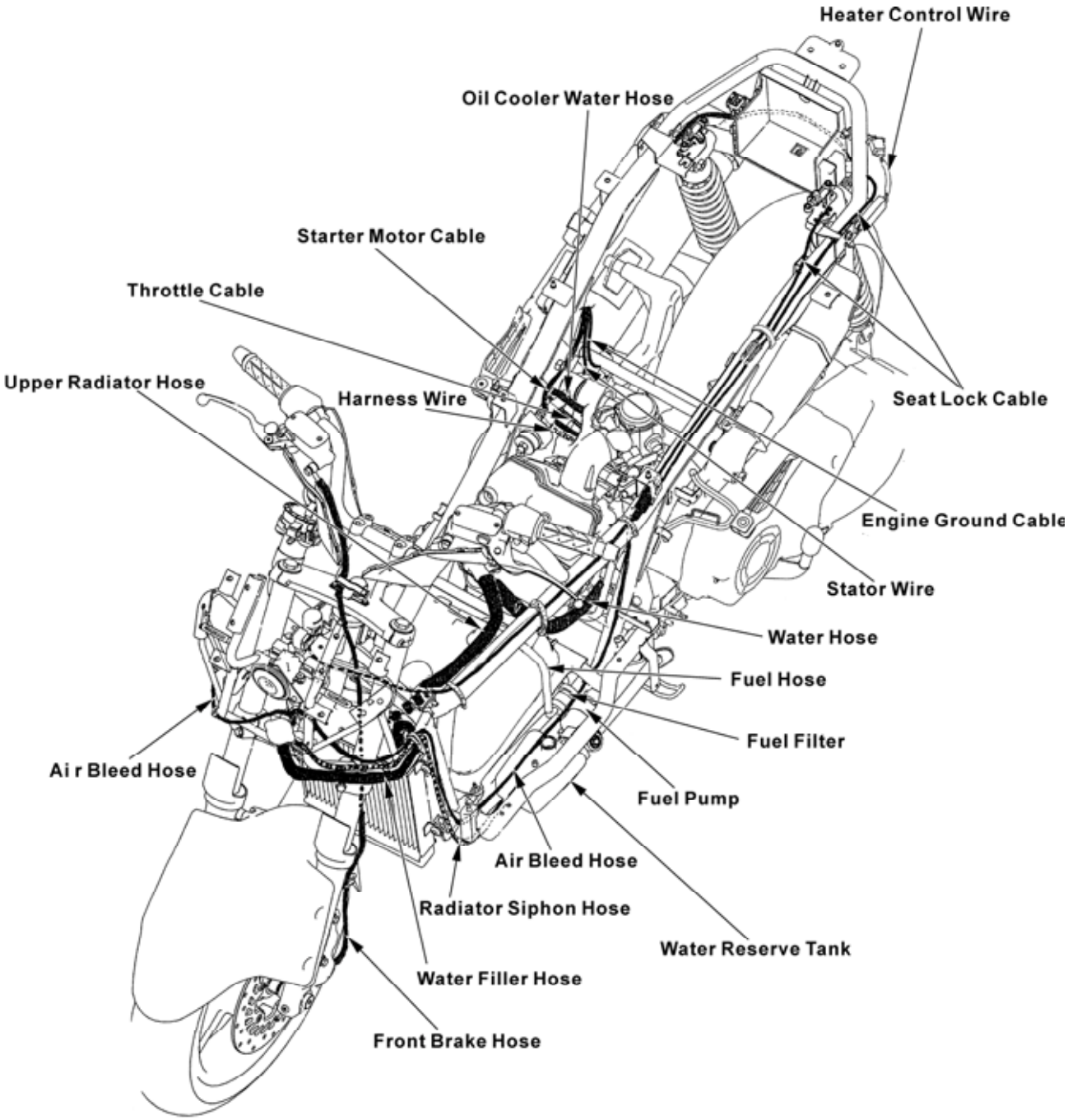
Lubrication Points	Lubricant
Valve guide/valve stem movable part Camshaft protruding surface Valve rocker arm friction surface Camshaft drive chain Cylinder lock bolt and nut Piston surroundings and piston ring grooves Piston pin surroundings Cylinder inside wall Connecting rod/piston pin hole Connecting rod big end Crankshaft Balancer shaft Crankshaft one-way clutch movable part Oil pump drive chain Starter reduction gear engaging part O-ring face Oil seal lip	•Genuine KYMCO Engine Oil (SAE 5W-50) •API SJ Engine Oil
Drive gear shaft Countershaft Final gear Final gear shaft Transmission gearshaft bearing part	Transmission oil: SAE 90
A.C. generator connector	Adhesive

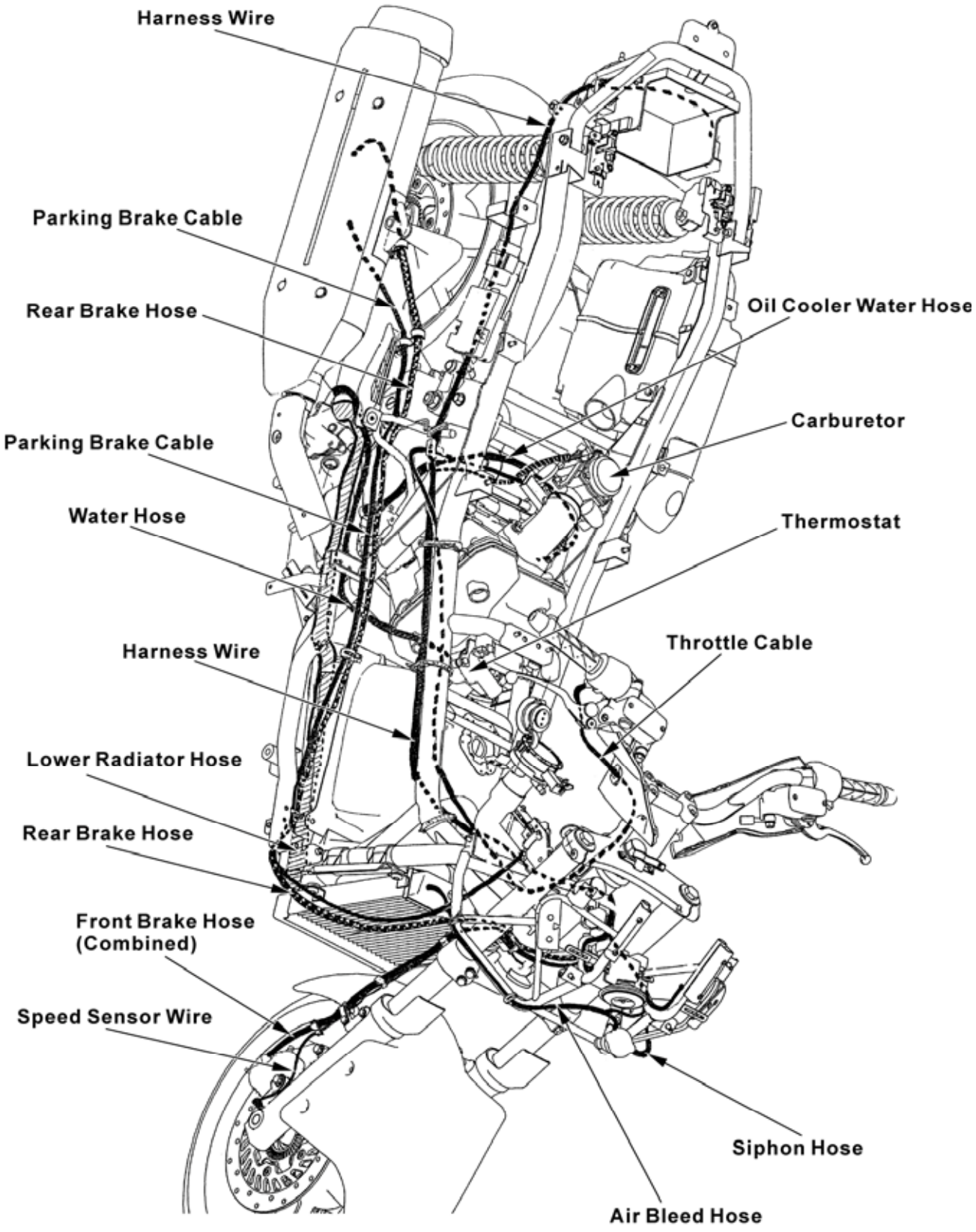
FRAME

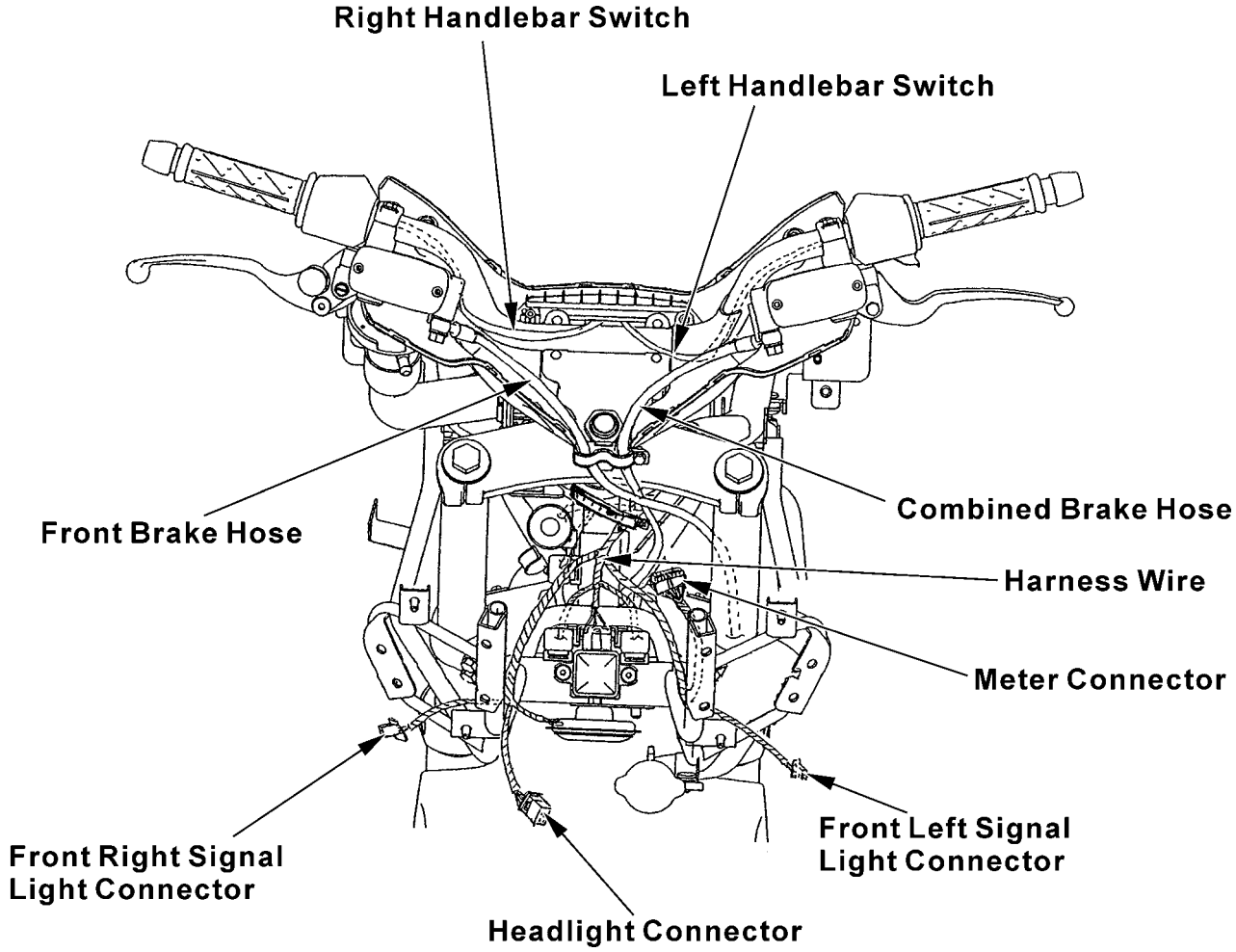
The following is the lubrication points for the frame.
Use general purpose grease for parts not listed.
Apply clean engine oil or grease to cables and movable parts not specified. This will avoid abnormal noise and rise the durability of the motorcycle.

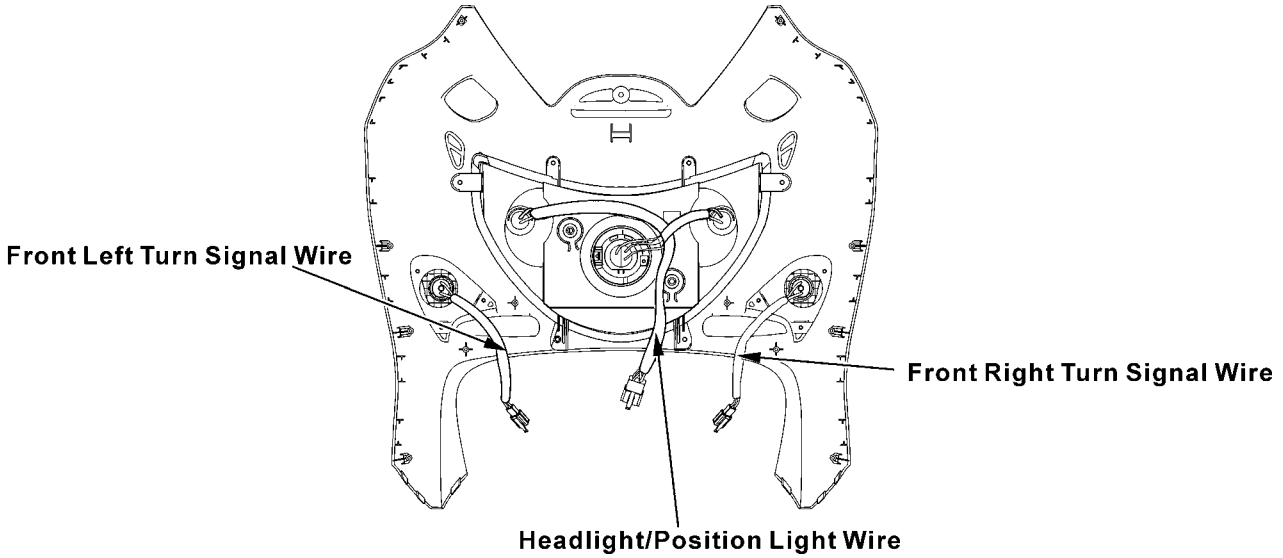


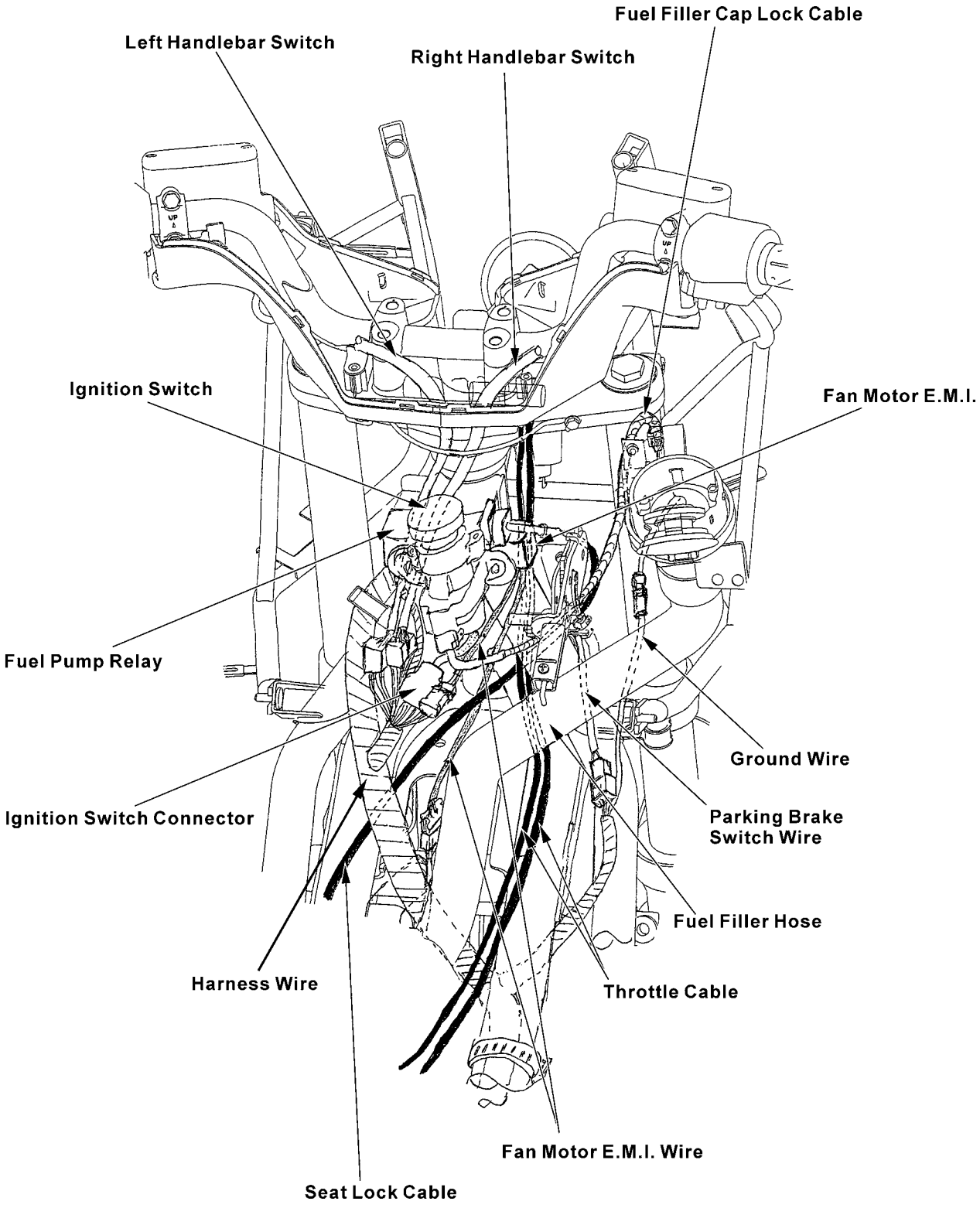
CABLE & HARNESS ROUTING (XCITING 500)

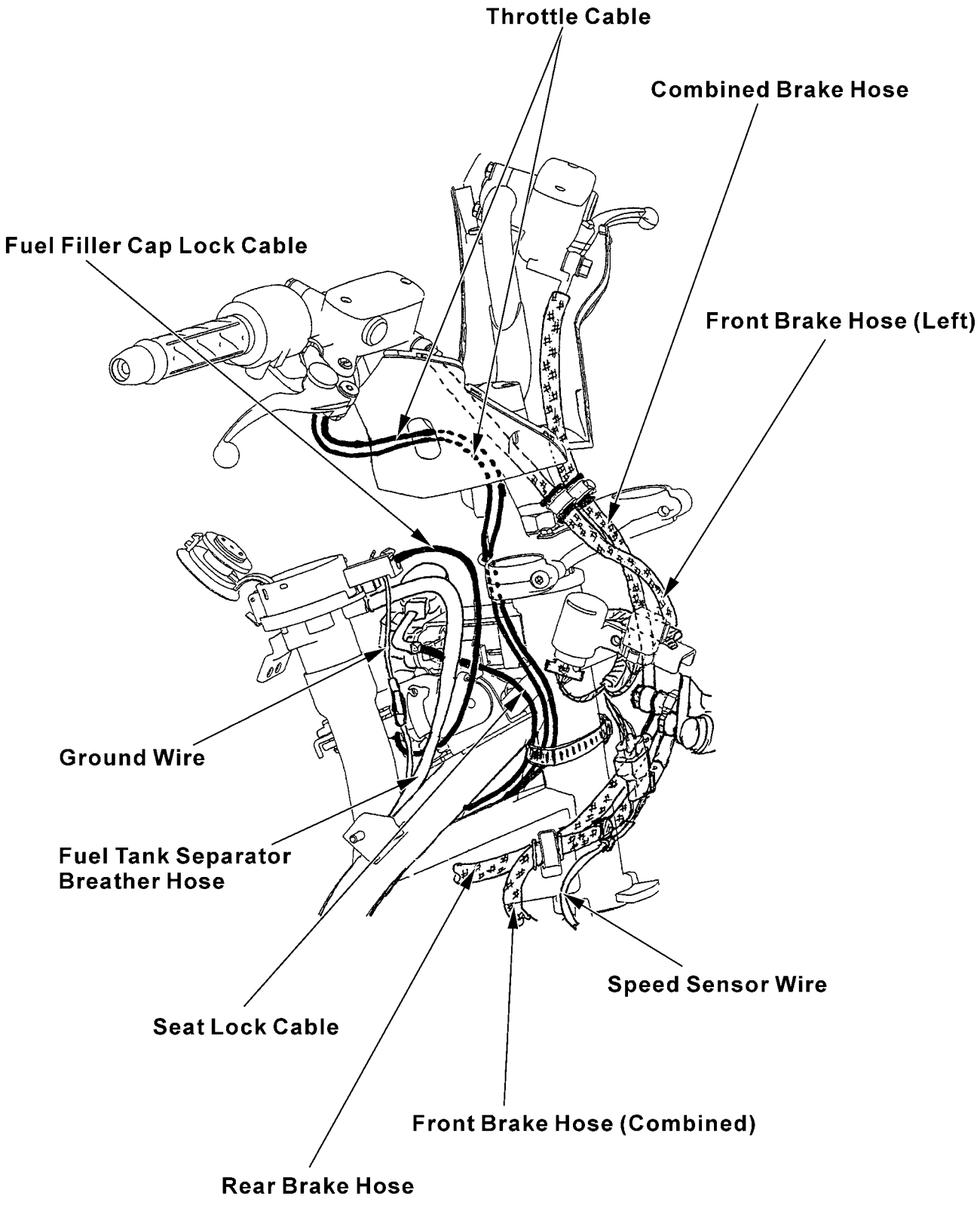


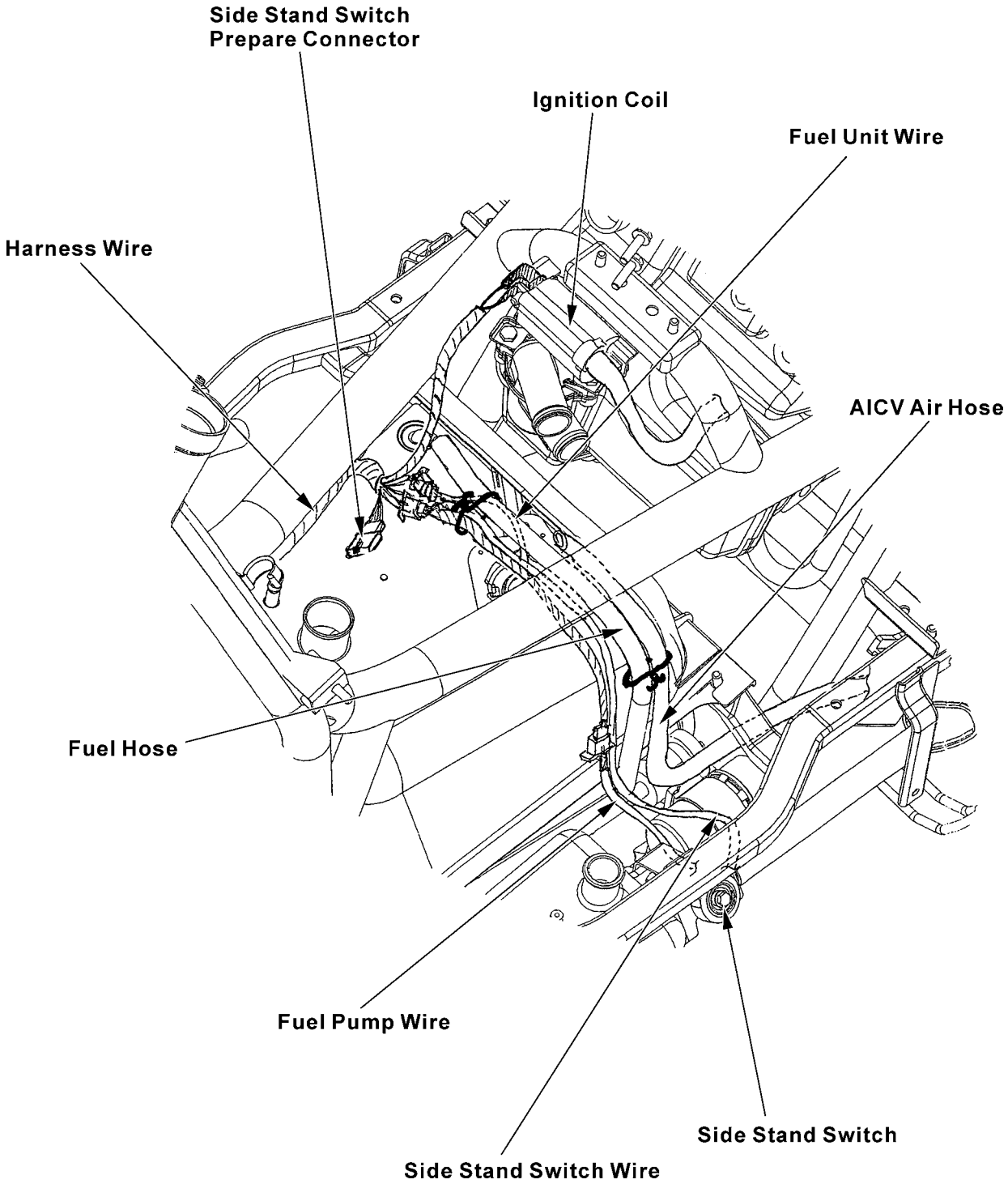

Harness Wire
Parking Brake Cable
Rear Brake Hose
Oil Cooler Water Hose
Carburetor
Parking Brake Cable
Water Hose
Thermostat
Throttle Cable
Harness Wire
Lower Radiator Hose
Rear Brake Hose
Front Brake Hose
(Combined)
Speed Sensor Wire
Siphon Hose
Air Bleed Hose

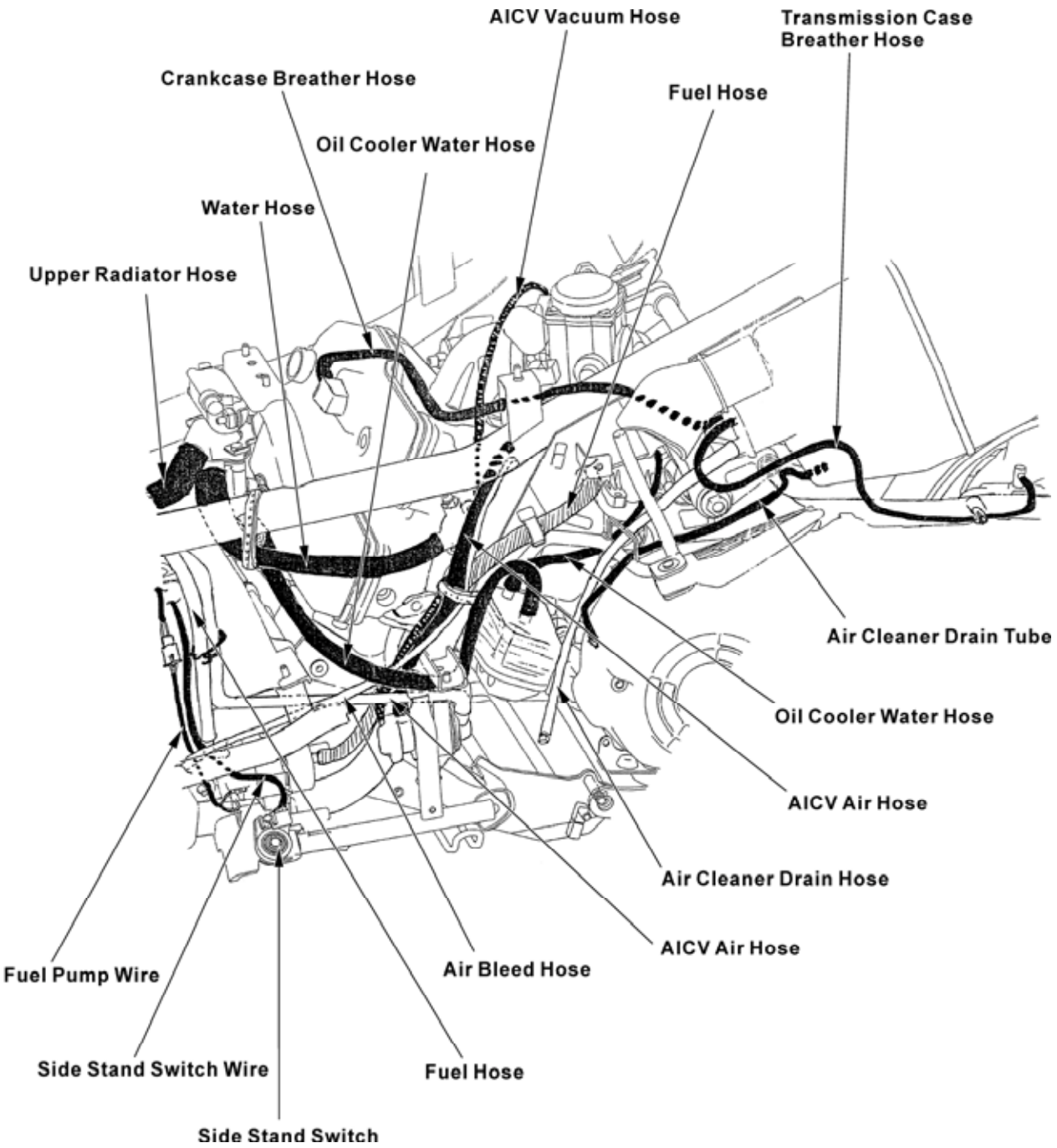

Right Handlebar Switch
Left Handlebar Switch
Front Brake Hose
Combined Brake Hose
Harness Wire
Meter Connector
Front Right Signal
Light Connector
Front Left Signal
Light Connector
Headlight Connector

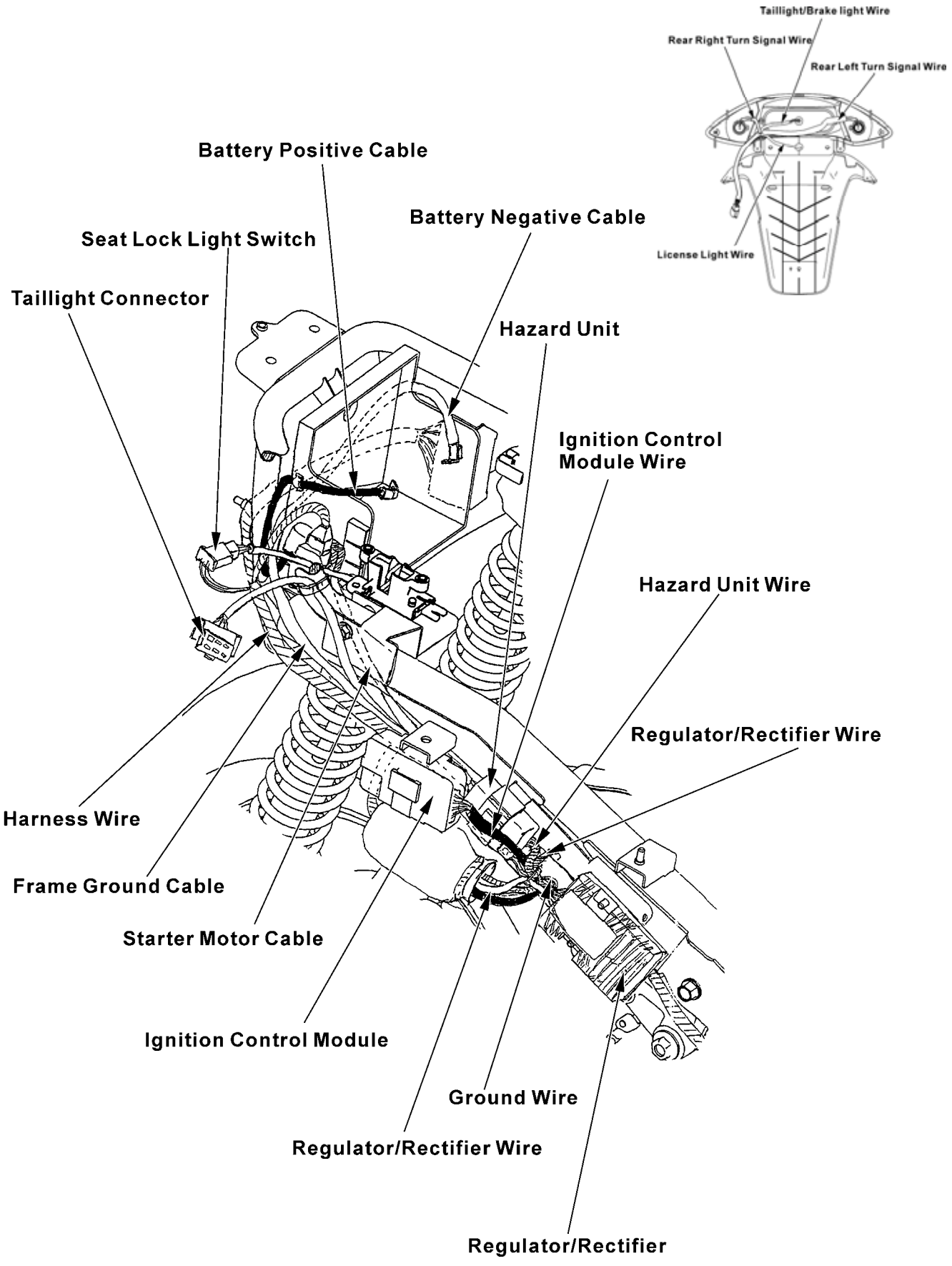

Front Left Turn Signal Wire
Front Right Turn Signal Wire
Headlight/Position Light Wire

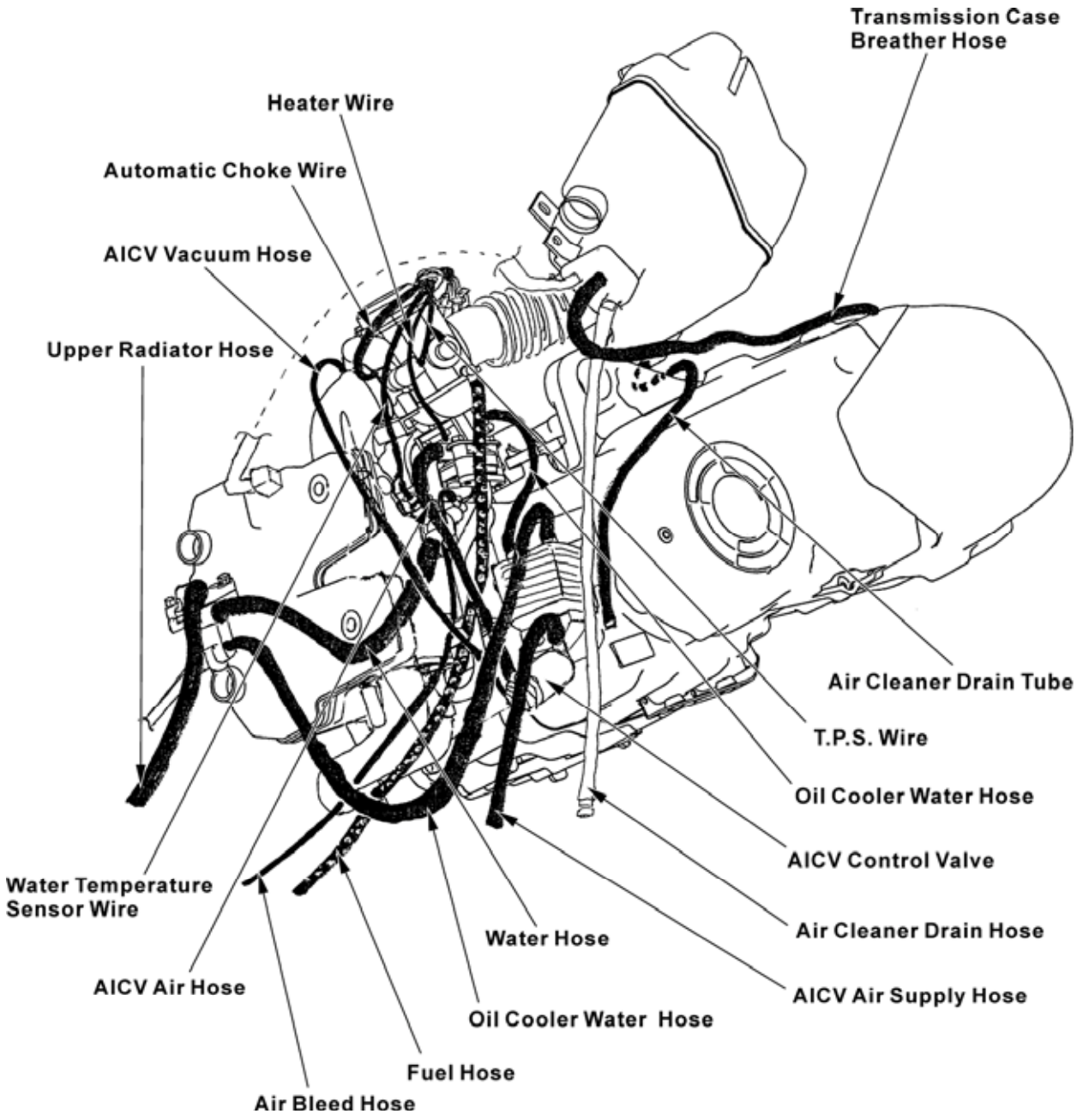

Fuel Filler Cap Lock Cable
Left Handlebar Switch
Right Handlebar Switch
Ignition Switch
Fan Motor E.M.I.
Fuel Pump Relay
Ground Wire
Ignition Switch Connector
Parking Brake Switch Wire
Fuel Filler Hose
Harness Wire
Throttle Cable
Fan Motor E.M.I. Wire
Seat Lock Cable

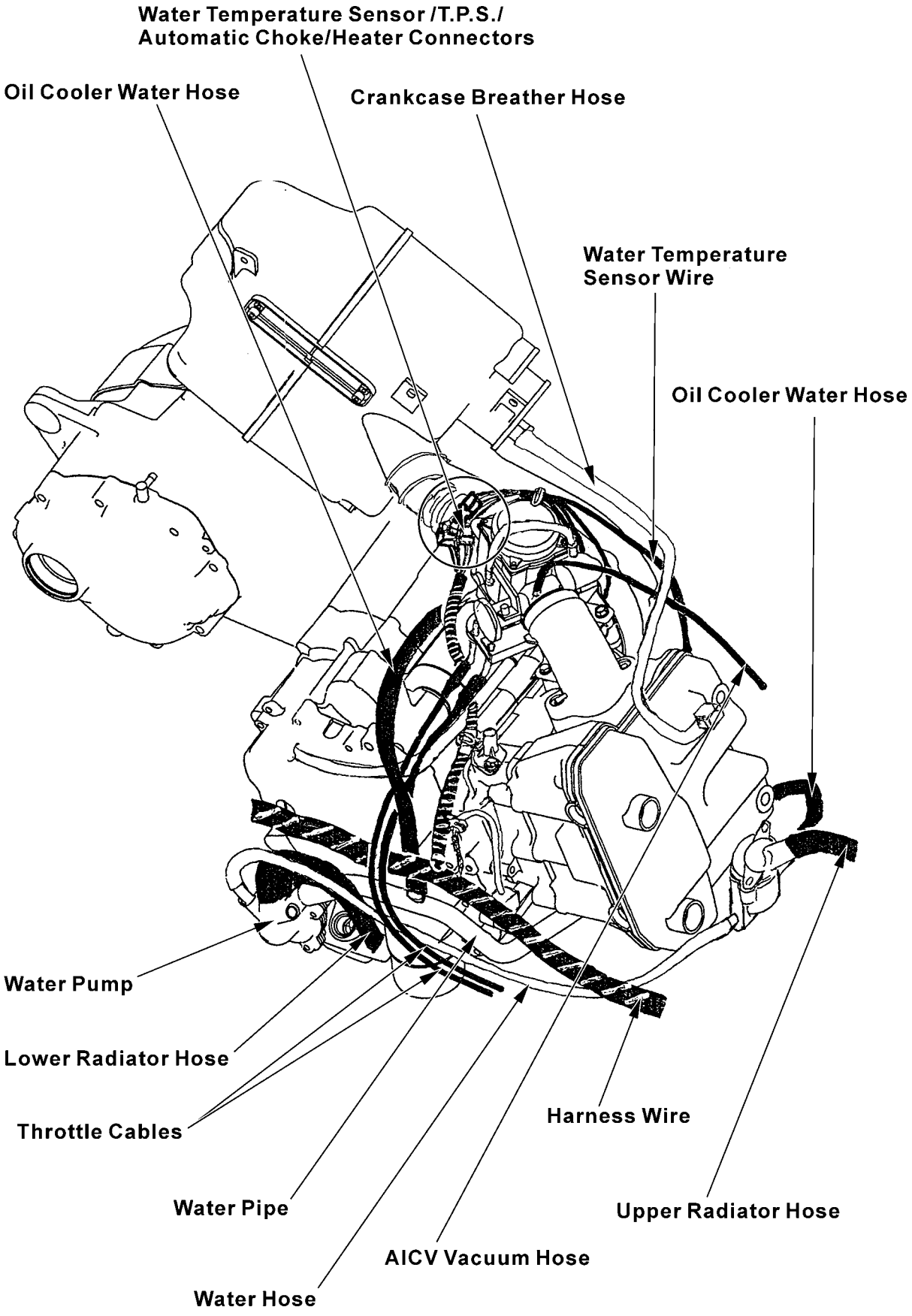

Throttle Cable
Combined Brake Hose
Fuel Filler Cap Lock Cable
Front Brake Hose (Left)
Ground Wire
Fuel Tank Separator
Breather Hose
Speed Sensor Wire
Seat Lock Cable
Front Brake Hose (Combined)
Rear Brake Hose


Side Stand Switch
Prepare Connector
Ignition Coil
Fuel Unit Wire
Harness Wire
AICV Air Hose
Fuel Hose
Fuel Pump Wire
Side Stand Switch
Side Stand Switch Wire

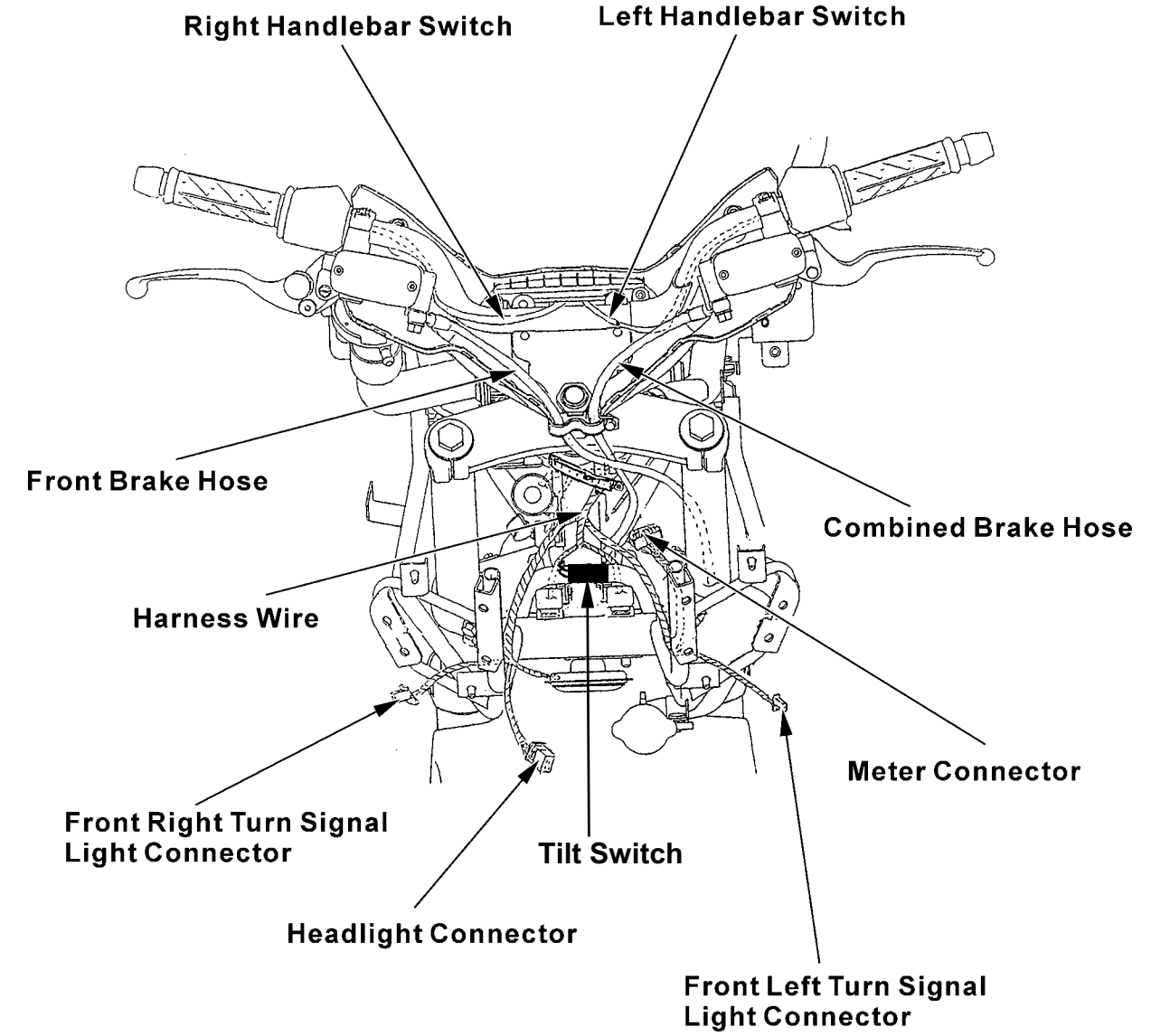

AICV Vacuum Hose
Transmission Case Breather Hose
Crankcase Breather Hose
Fuel Hose
Oil Cooler Water Hose
Water Hose
Upper Radiator Hose
Air Cleaner Drain Tube
Oil Cooler Water Hose
AICV Air Hose
Air Cleaner Drain Hose
AICV Air Hose
Fuel Pump Wire
Air Bleed Hose
Side Stand Switch Wire
Fuel Hose
Side Stand Switch

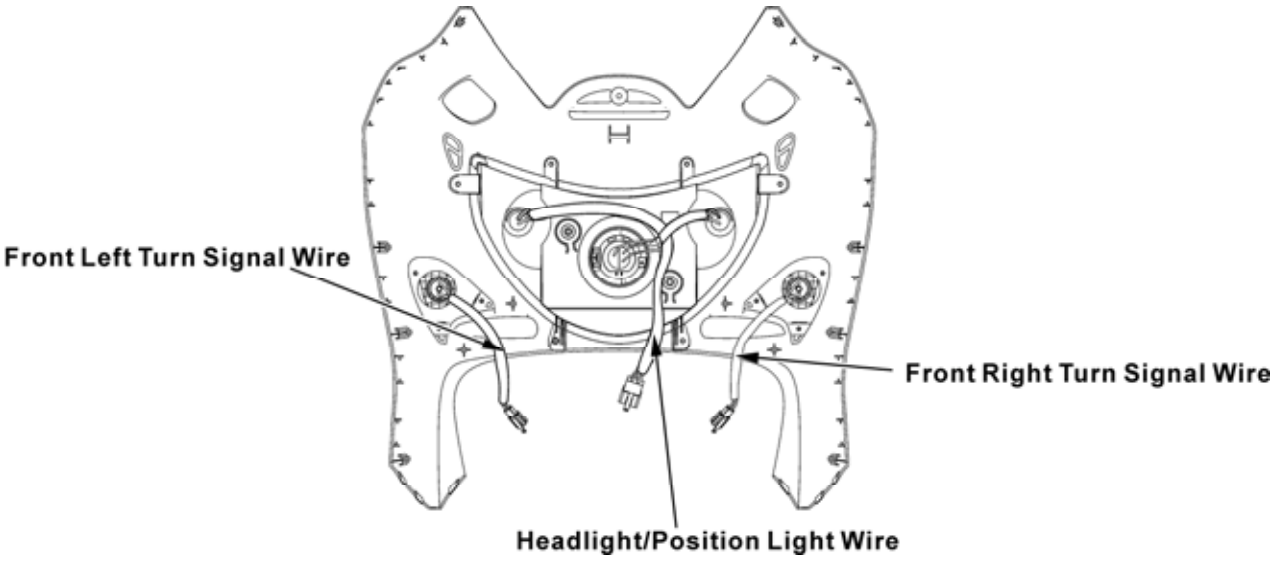

Taillight/Brake light Wire
Rear Right Turn Signal Wire
Rear Left Turn Signal Wire
License Light Wire
Battery Positive Cable
Battery Negative Cable
Seat Lock Light Switch
Taillight Connector
Hazard Unit
Ignition Control Module Wire
Hazard Unit Wire
Regulator/Rectifier Wire
Harness Wire
Frame Ground Cable
Starter Motor Cable
Ignition Control Module
Ground Wire
Regulator/Rectifier Wire
Regulator/Rectifier

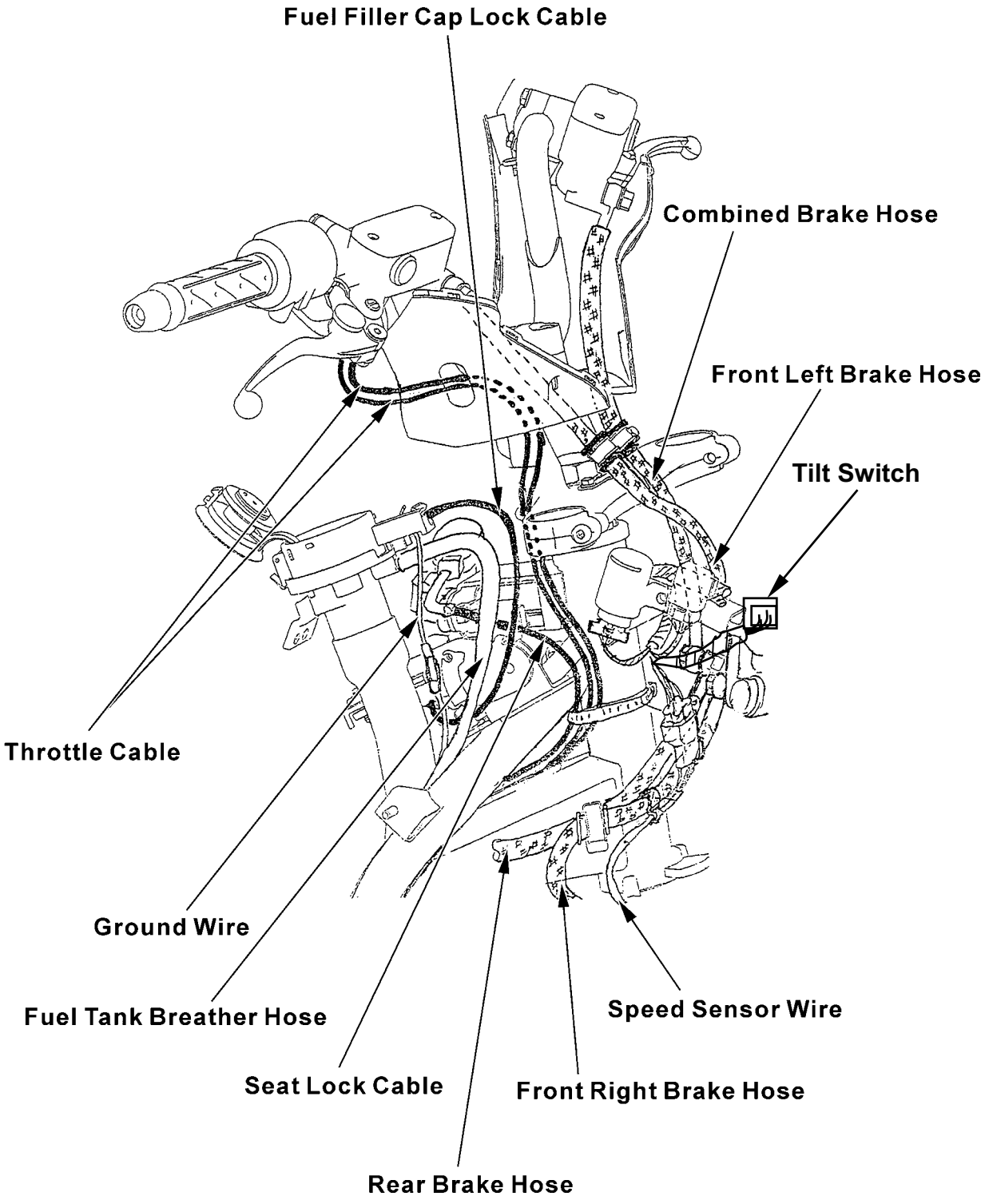

Transmission Case Breather Hose
Heater Wire
Automatic Choke Wire
AICV Vacuum Hose
Upper Radiator Hose
Air Cleaner Drain Tube
T.P.S. Wire
Oil Cooler Water Hose
AICV Control Valve
Water Temperature Sensor Wire
Air Cleaner Drain Hose
Water Hose
AICV Air Hose
AICV Air Supply Hose
Oil Cooler Water Hose
Fuel Hose
Air Bleed Hose

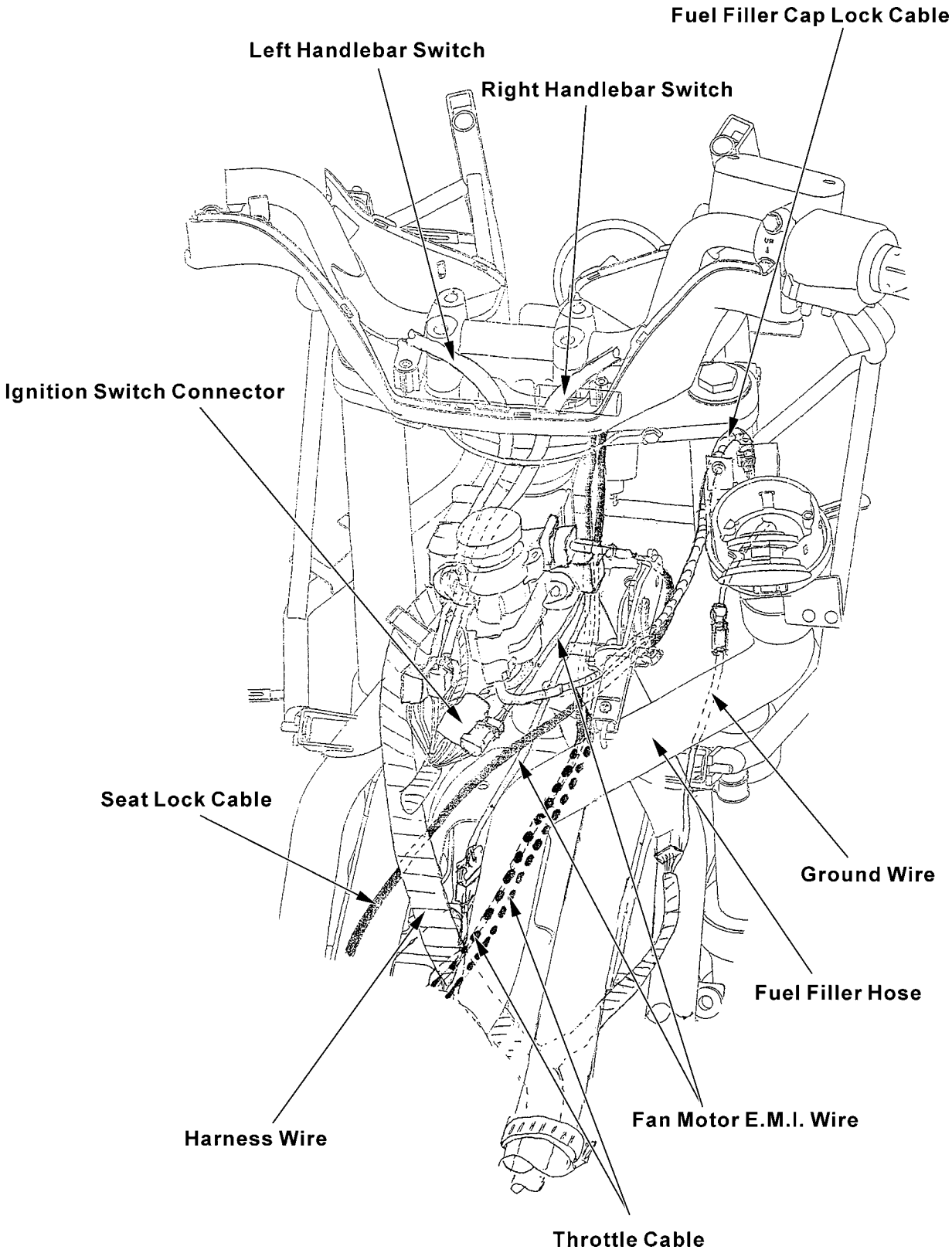

Water Temperature Sensor /T.P.S./
Automatic Choke/Heater Connectors
Oil Cooler Water Hose
Crankcase Breather Hose
Water Temperature
Sensor Wire
Oil Cooler Water Hose
Water Pump
Lower Radiator Hose
Throttle Cables
Water Pipe
Water Hose
AICV Vacuum Hose
Harness Wire
Upper Radiator Hose

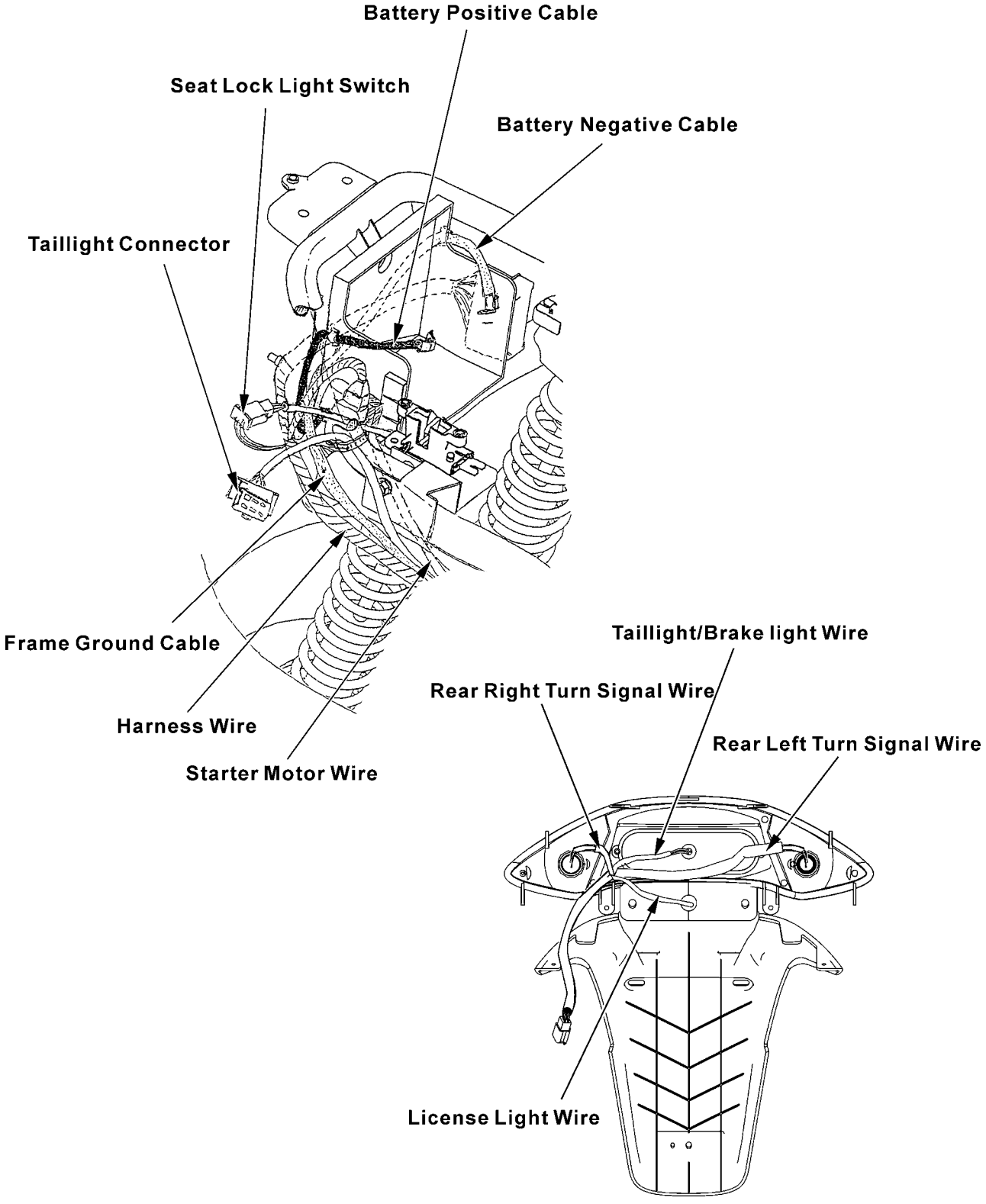
CABLE & HARNESS ROUTING (XCITING 500 AFI)

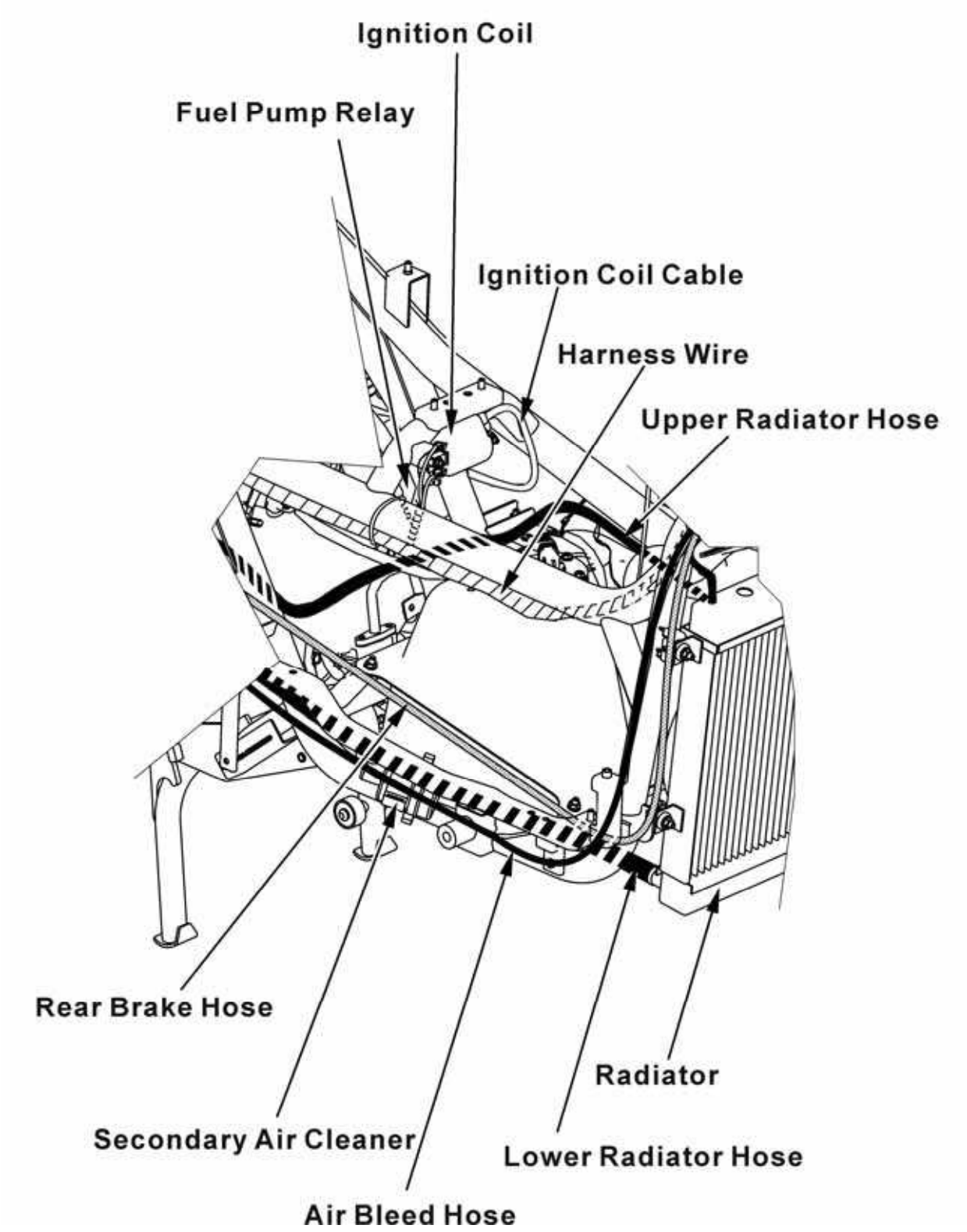


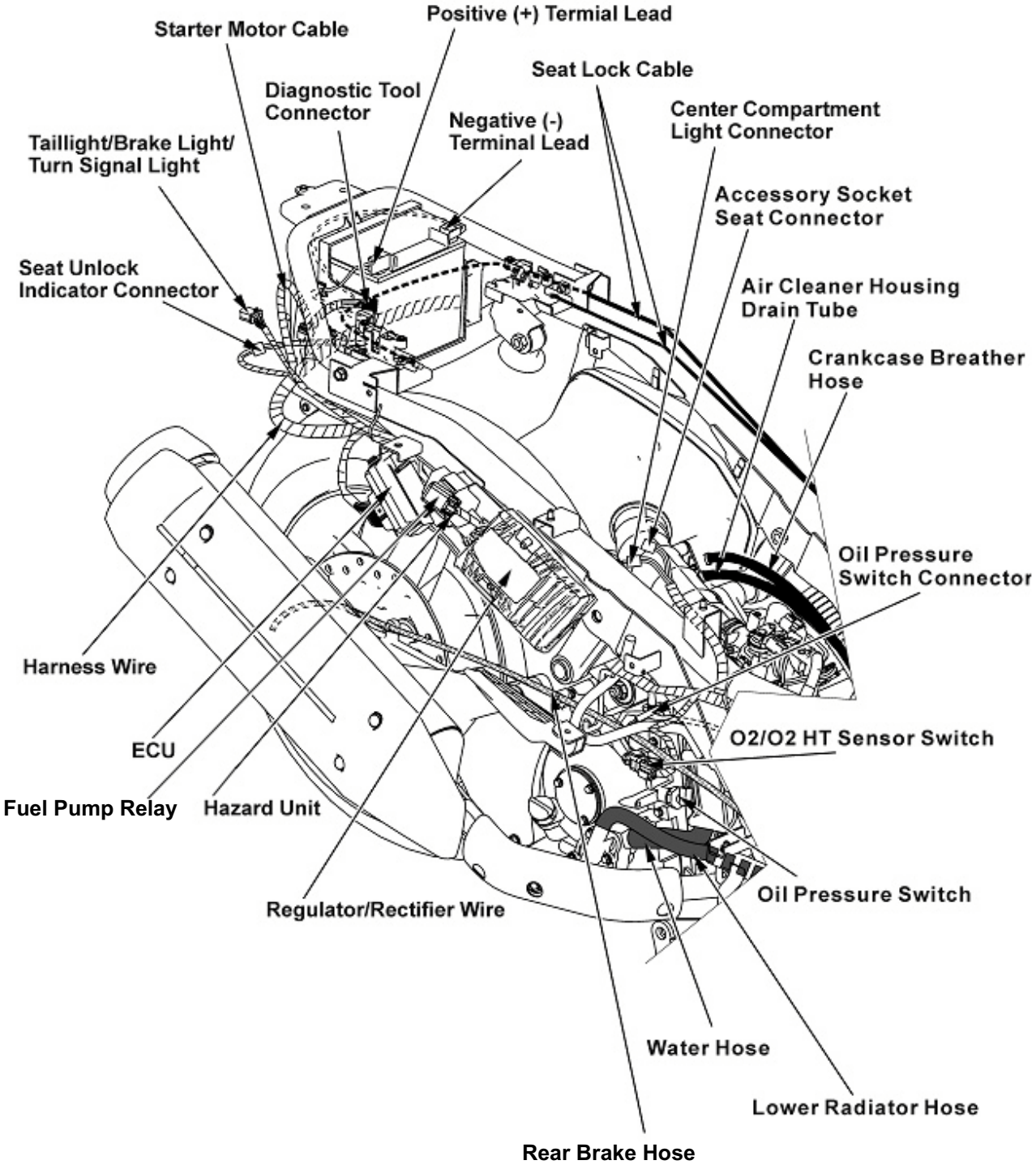


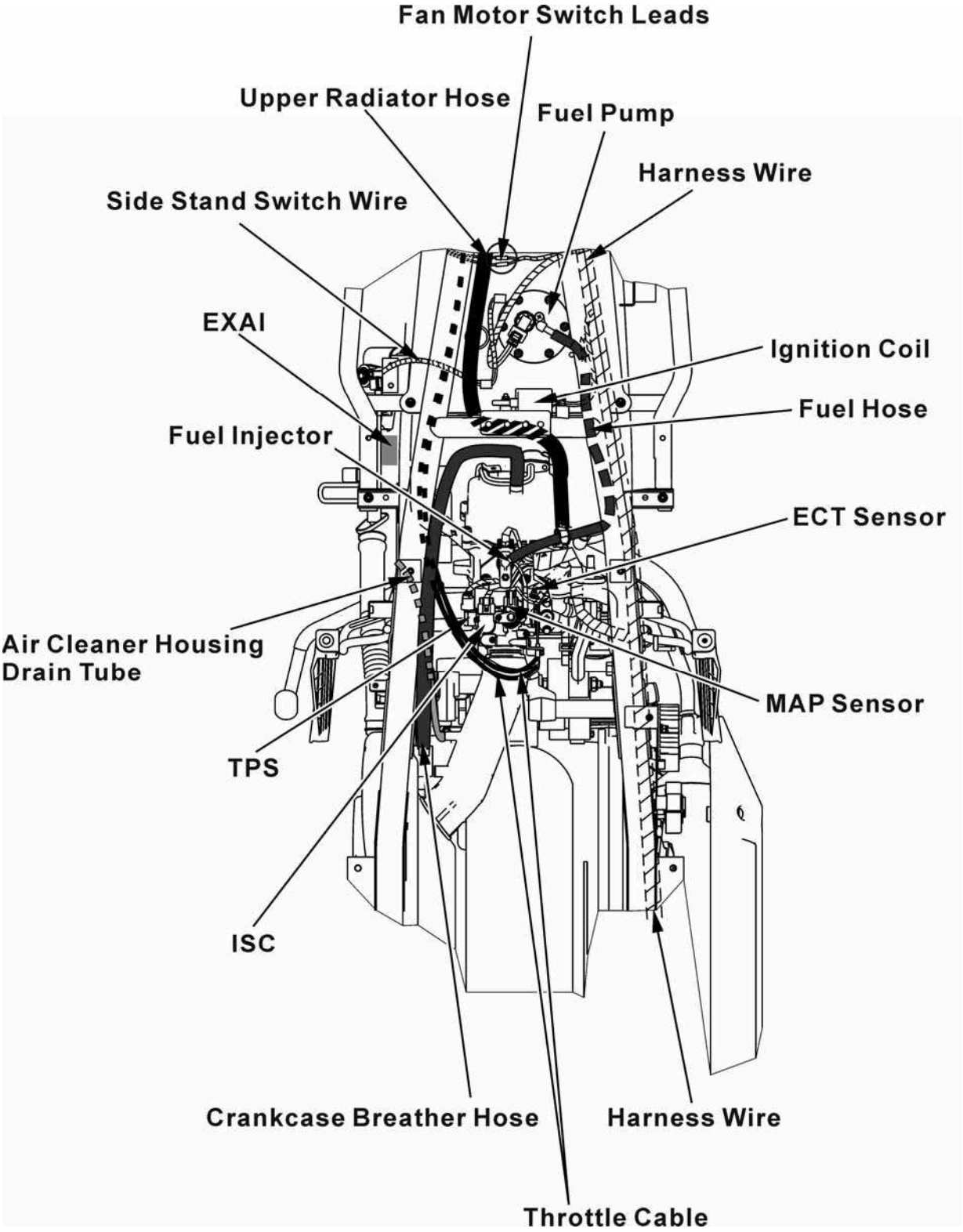

Fuel Filler Cap Lock Cable
Combined Brake Hose
Front Left Brake Hose
Tilt Switch
Throttle Cable
Ground Wire
Fuel Tank Breather Hose
Seat Lock Cable
Rear Brake Hose
Front Right Brake Hose
Speed Sensor Wire

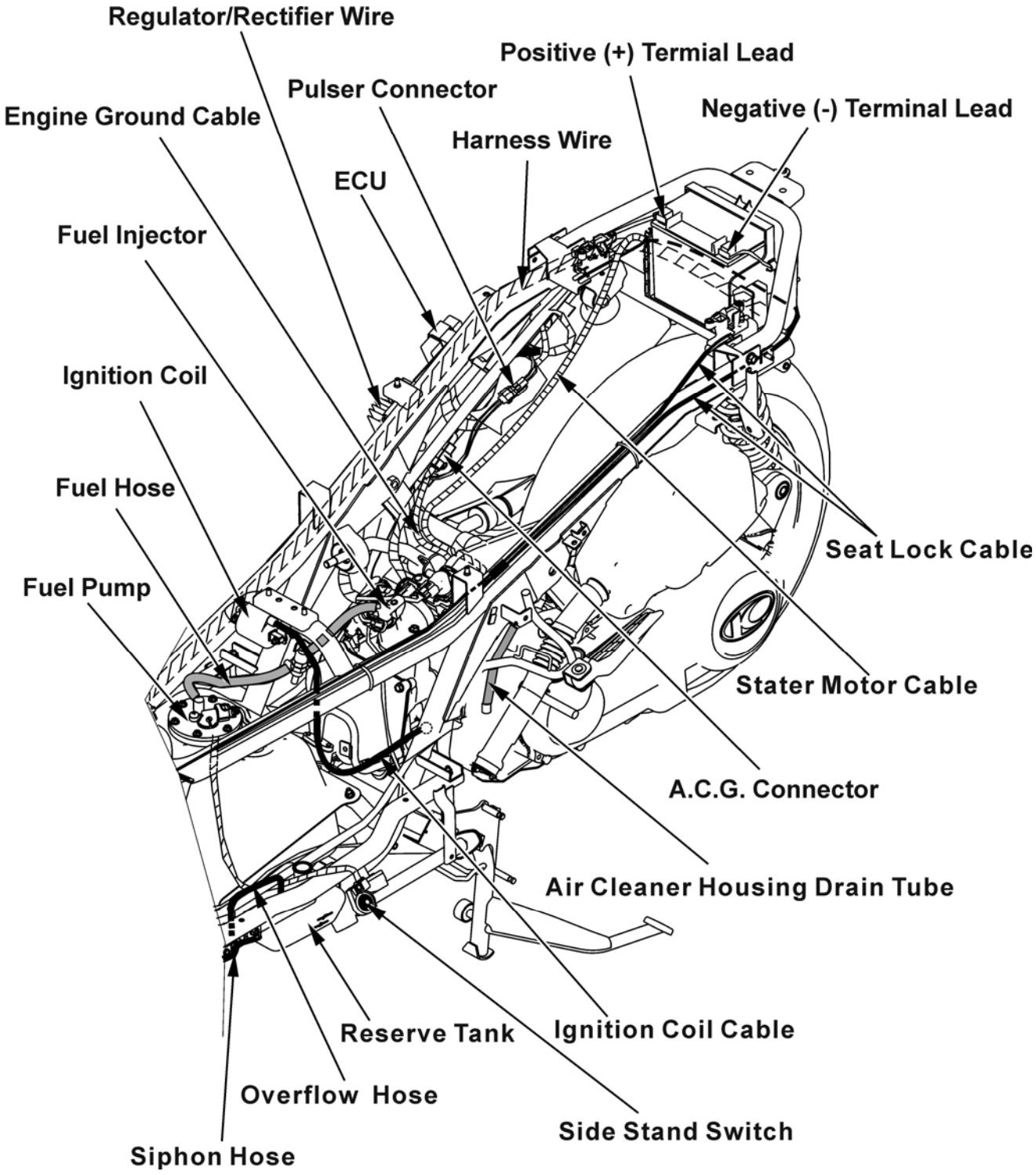

Fuel Filler Cap Lock Cable
Left Handlebar Switch
Right Handlebar Switch
Ignition Switch Connector
Seat Lock Cable
Ground Wire
Fuel Filler Hose
Fan Motor E.M.I. Wire
Harness Wire
Throttle Cable


Battery Positive Cable
Seat Lock Light Switch
Battery Negative Cable
Taillight Connector
Frame Ground Cable
Harness Wire
Starter Motor Wire
Taillight/Brake light Wire
Rear Right Turn Signal Wire
Rear Left Turn Signal Wire
License Light Wire

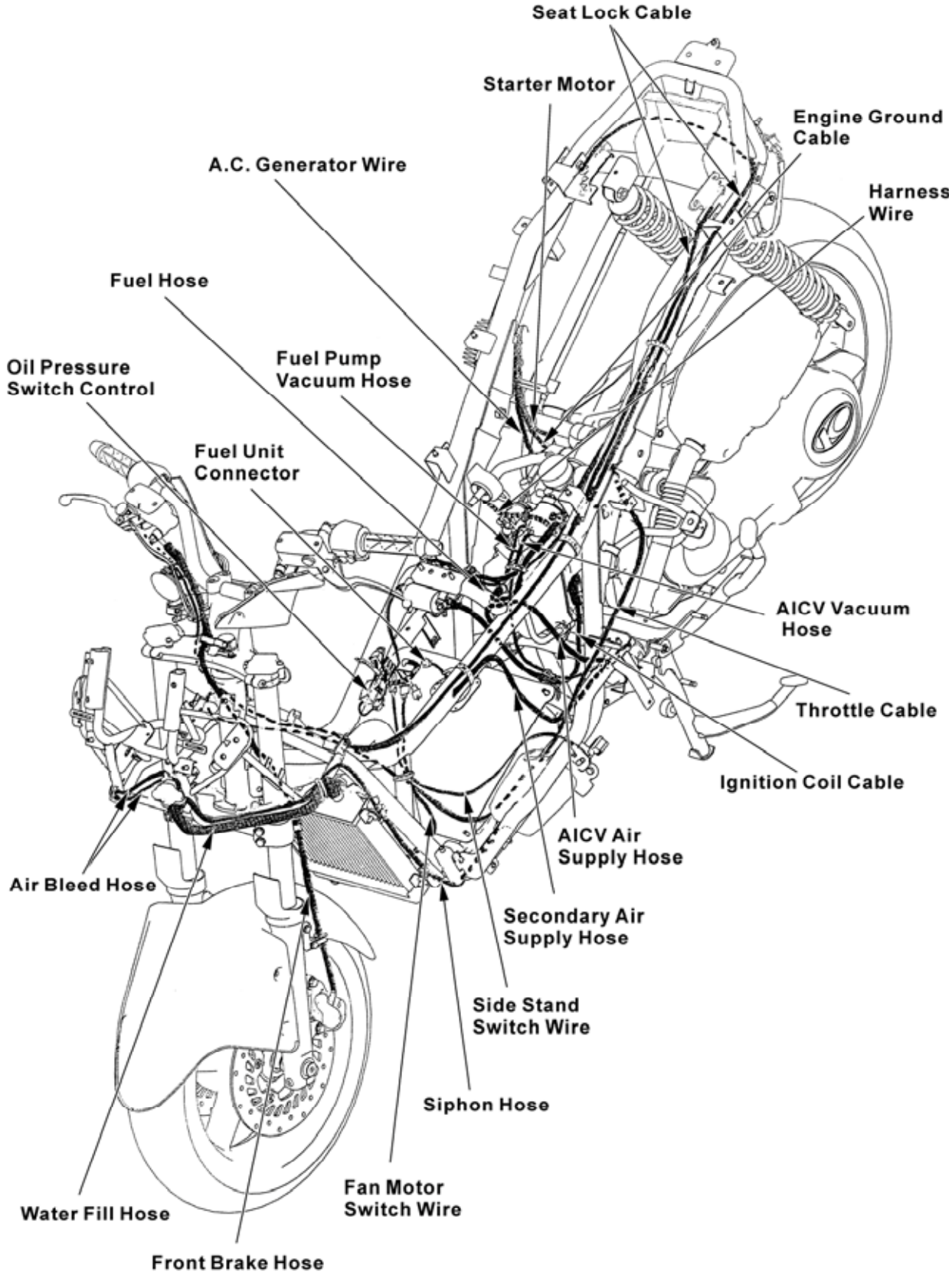

Ignition Coil
Fuel Pump Relay
Ignition Coil Cable
Harness Wire
Upper Radiator Hose
Rear Brake Hose
Radiator
Secondary Air Cleaner
Lower Radiator Hose
Air Bleed Hose

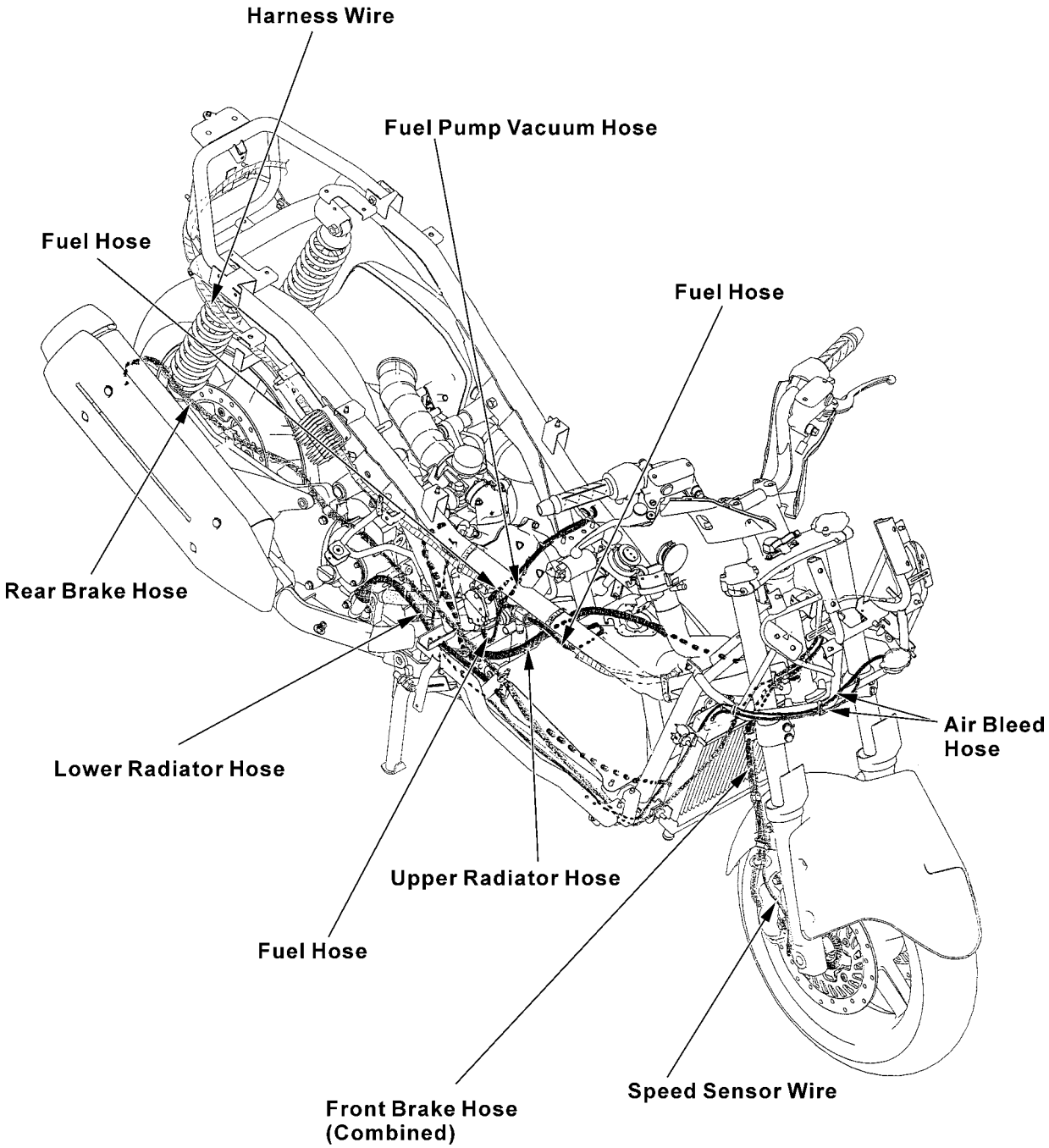

Starter Motor Cable
Positive (+) Termial Lead
Seat Lock Cable
Diagnostic Tool Connector
Center Compartment Light Connector
Negative (-) Terminal Lead
Taillight/Brake Light/ Turn Signal Light
Accessory Socket Seat Connector
Seat Unlock Indicator Connector
Air Cleaner Housing Drain Tube
Crankcase Breather Hose
Oil Pressure Switch Connector
Harness Wire
O2/O2 HT Sensor Switch
ECU
Fuel Pump Relay
Hazard Unit
Oil Pressure Switch
Regulator/Rectifier Wire
Water Hose
Lower Radiator Hose
Rear Brake Hose

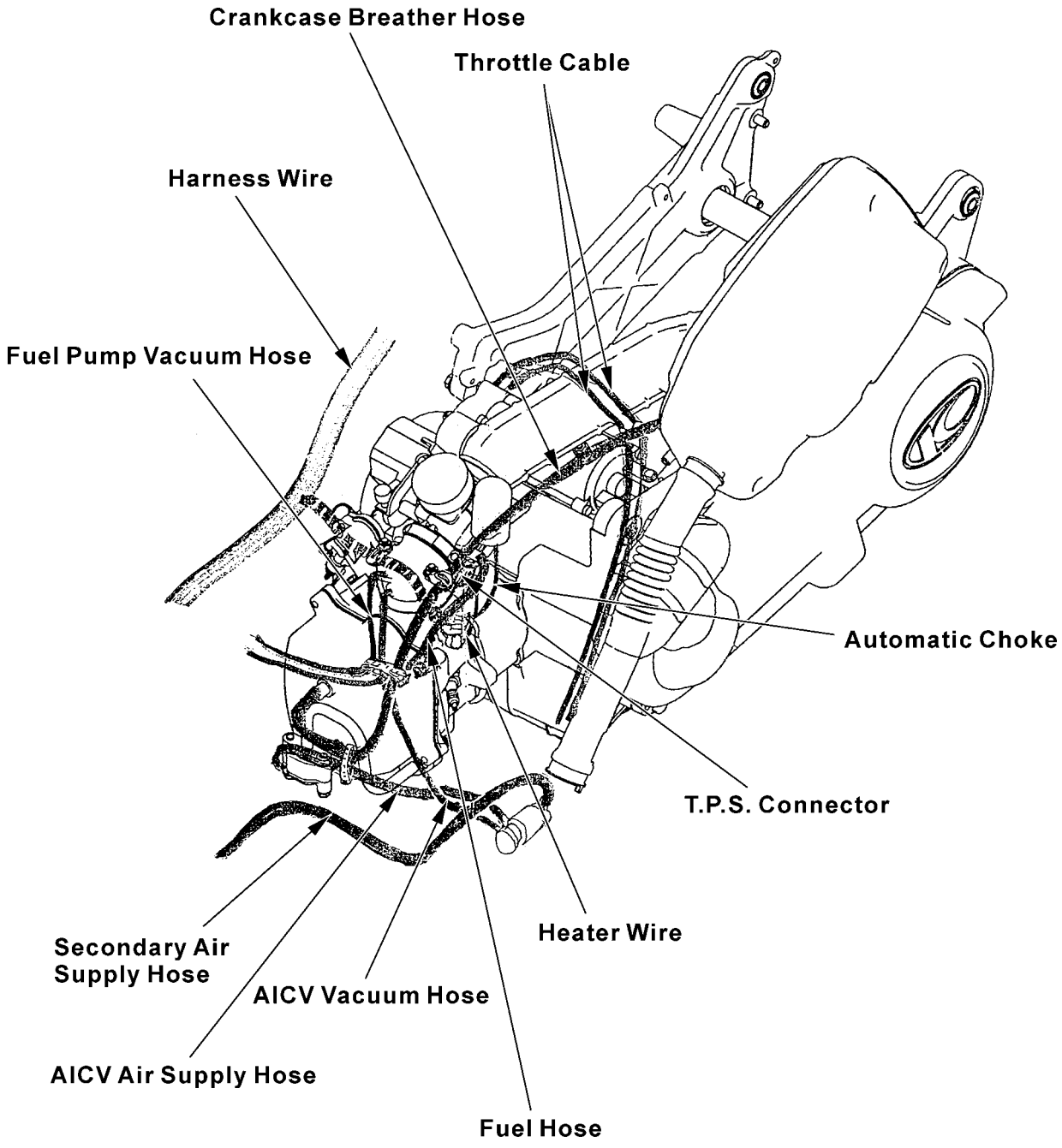

Fan Motor Switch Leads
Upper Radiator Hose
Fuel Pump
Harness Wire
Side Stand Switch Wire
EXAI
Ignition Coil
Fuel Hose
Fuel Injector
ECT Sensor
Air Cleaner Housing
Drain Tube
MAP Sensor
TPS
ISC
Crankcase Breather Hose
Harness Wire
Throttle Cable

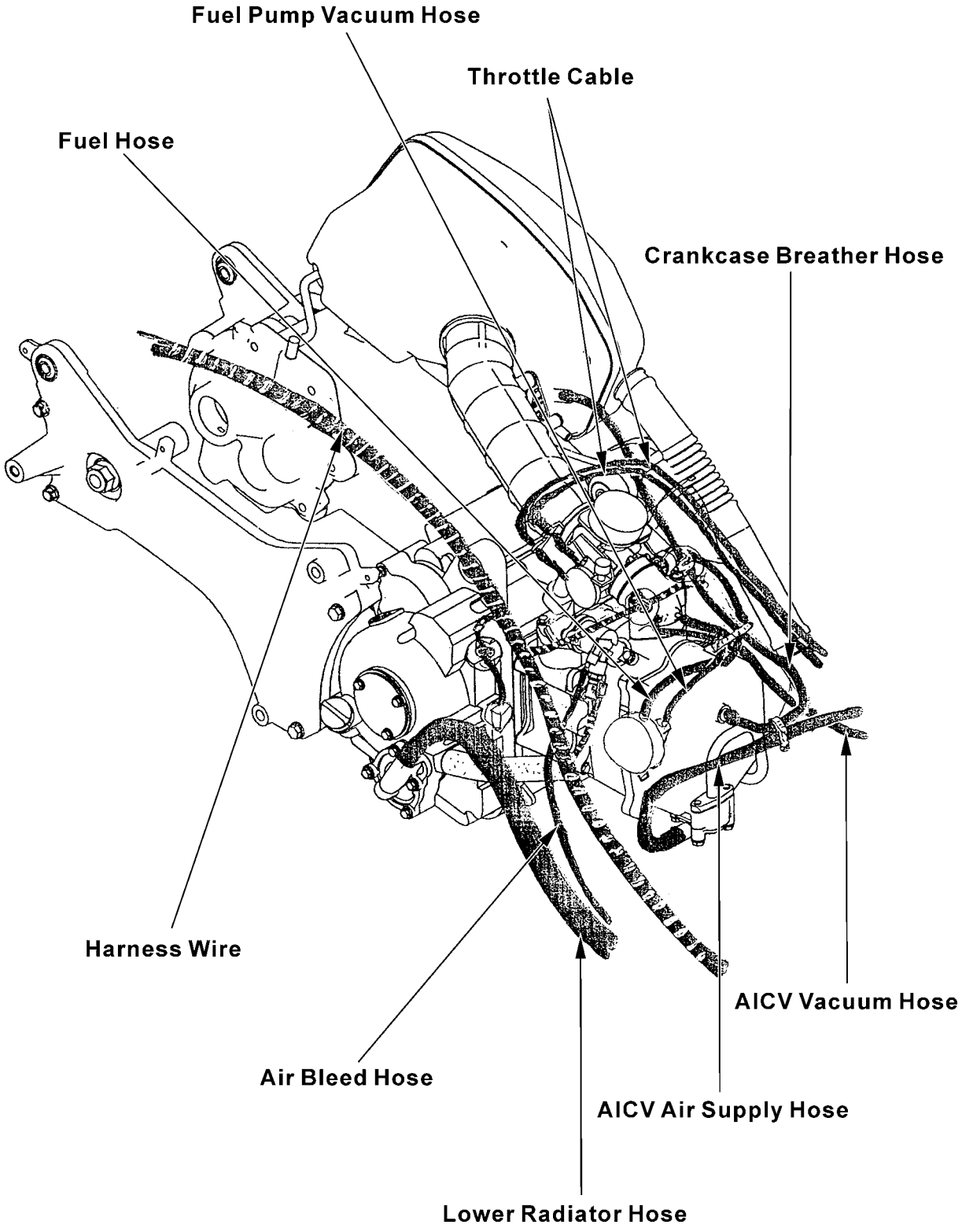

Regulator/Rectifier Wire
Positive (+) Termial Lead
Pulser Connector
Engine Ground Cable
Negative (-) Terminal Lead
Harness Wire
ECU
Fuel Injector
Ignition Coil
Fuel Hose
Seat Lock Cable
Fuel Pump
Stater Motor Cable
A.C.G. Connector
Air Cleaner Housing Drain Tube
Reserve Tank
Ignition Coil Cable
Overflow Hose
Side Stand Switch
Siphon Hose

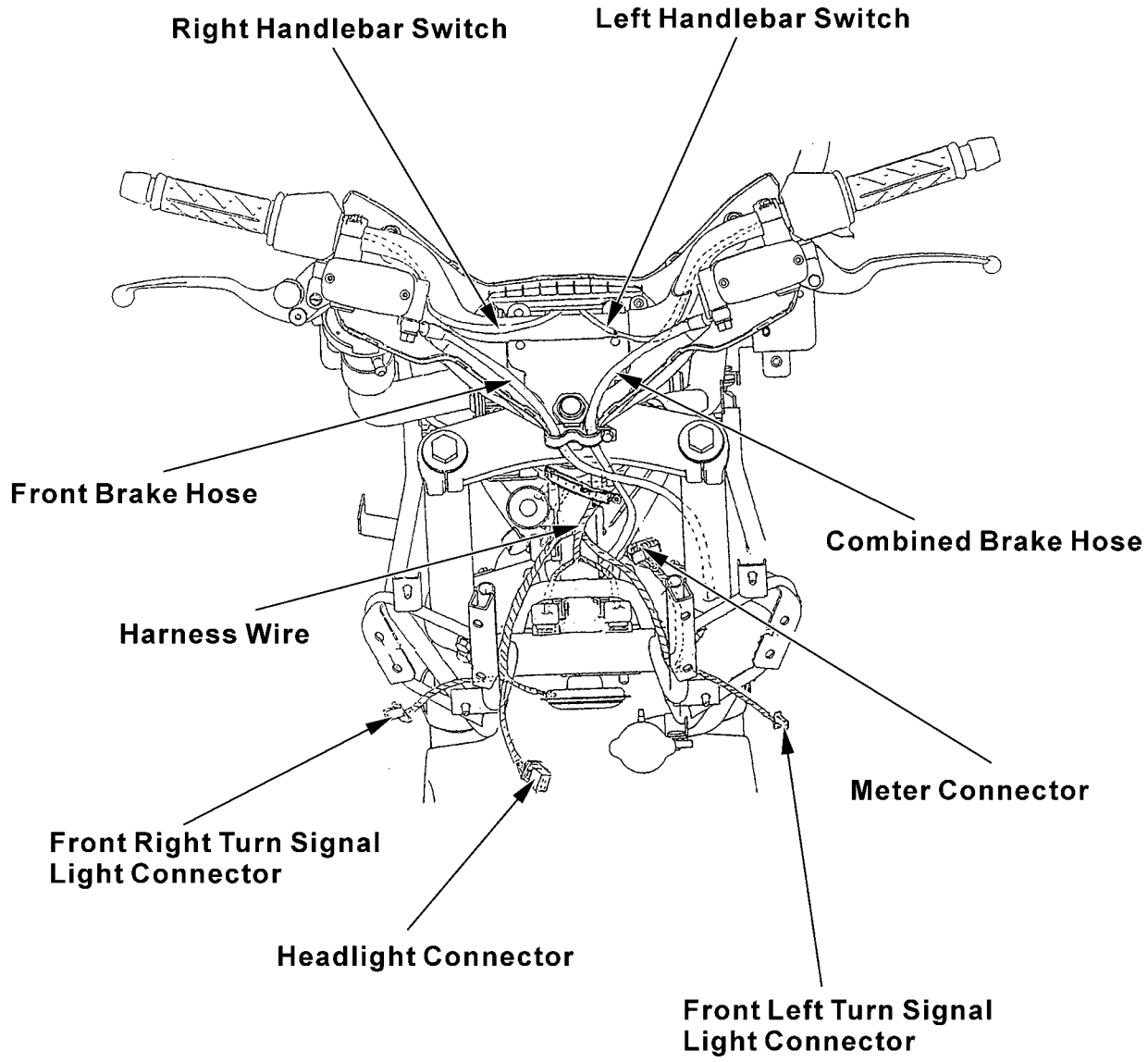
CABLE & HARNESS ROUTING (XCITING 250)

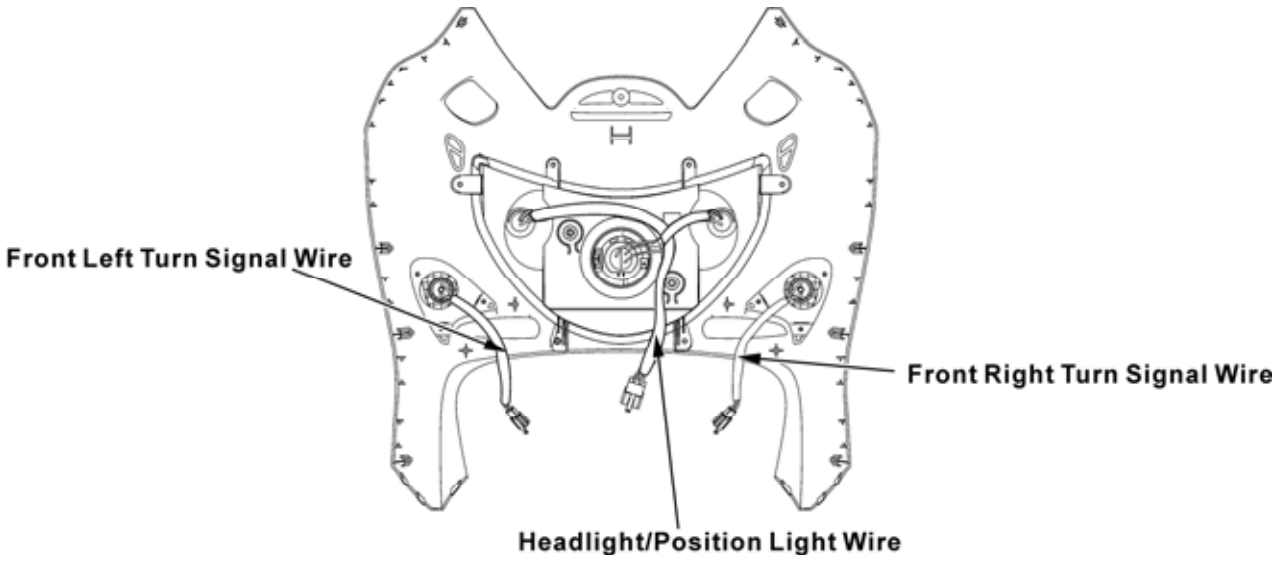


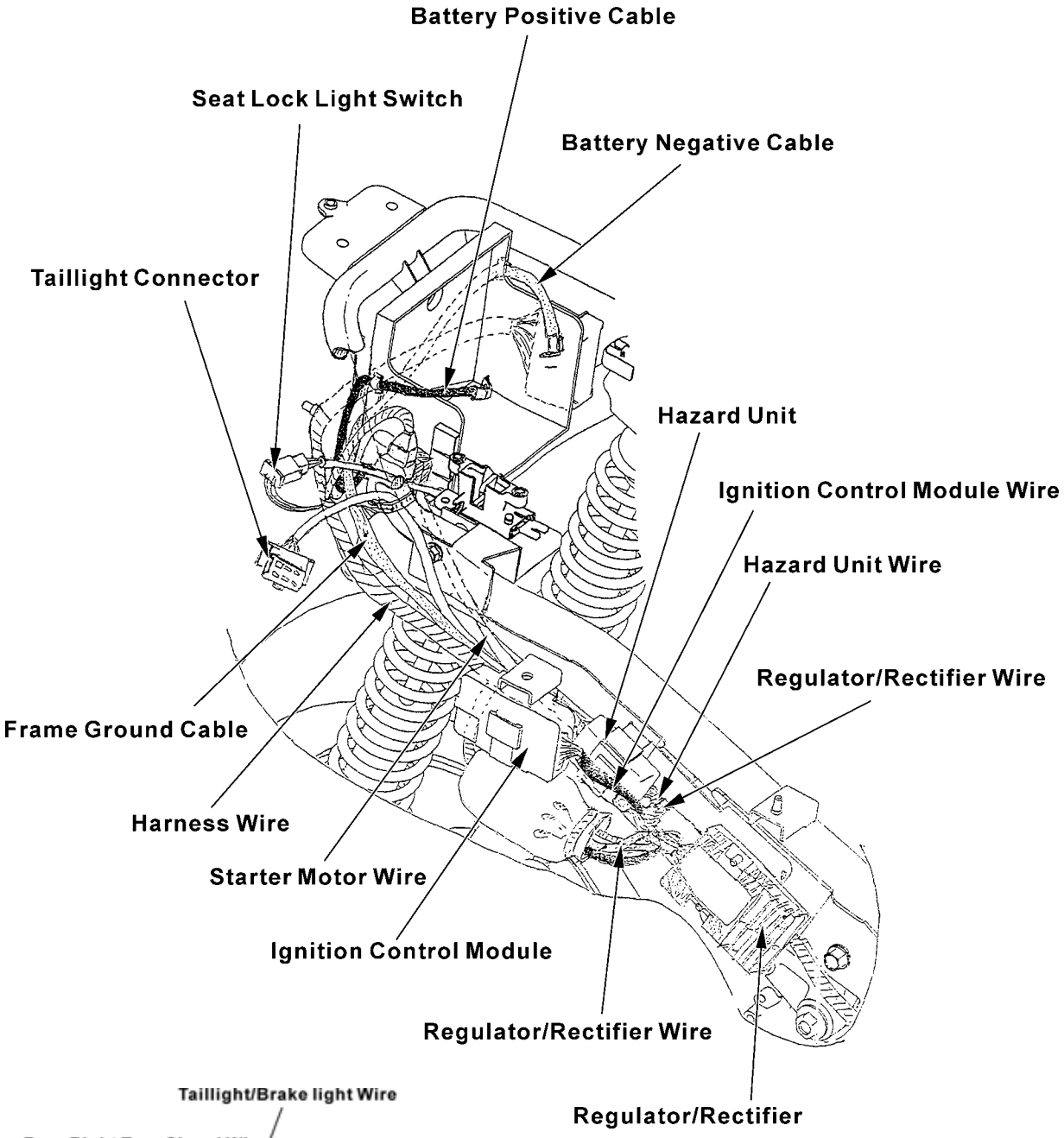

Harness Wire
Fuel Pump Vacuum Hose
Fuel Hose
Fuel Hose
Rear Brake Hose
Air Bleed Hose
Lower Radiator Hose
Upper Radiator Hose
Fuel Hose
Speed Sensor Wire
Front Brake Hose (Combined)

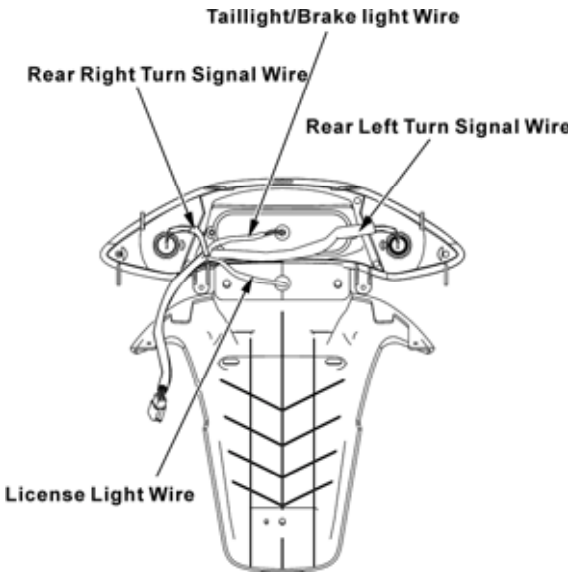

Crankcase Breather Hose
Throttle Cable
Harness Wire
Fuel Pump Vacuum Hose
Automatic Choke
T.P.S. Connector
Heater Wire
Secondary Air Supply Hose
AICV Vacuum Hose
AICV Air Supply Hose
Fuel Hose

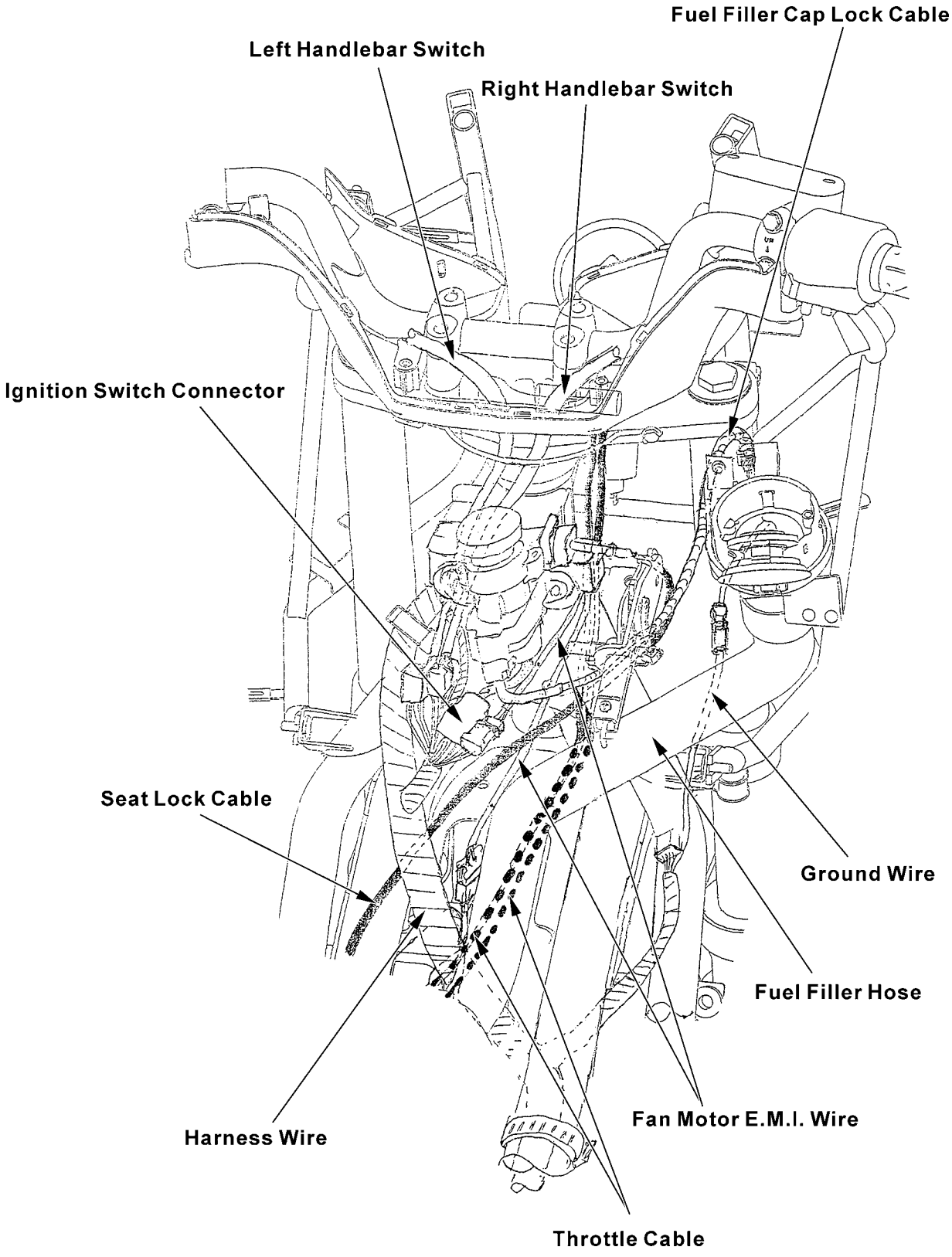

Fuel Pump Vacuum Hose
Throttle Cable
Fuel Hose
Crankcase Breather Hose
Harness Wire
AICV Vacuum Hose
Air Bleed Hose
AICV Air Supply Hose
Lower Radiator Hose

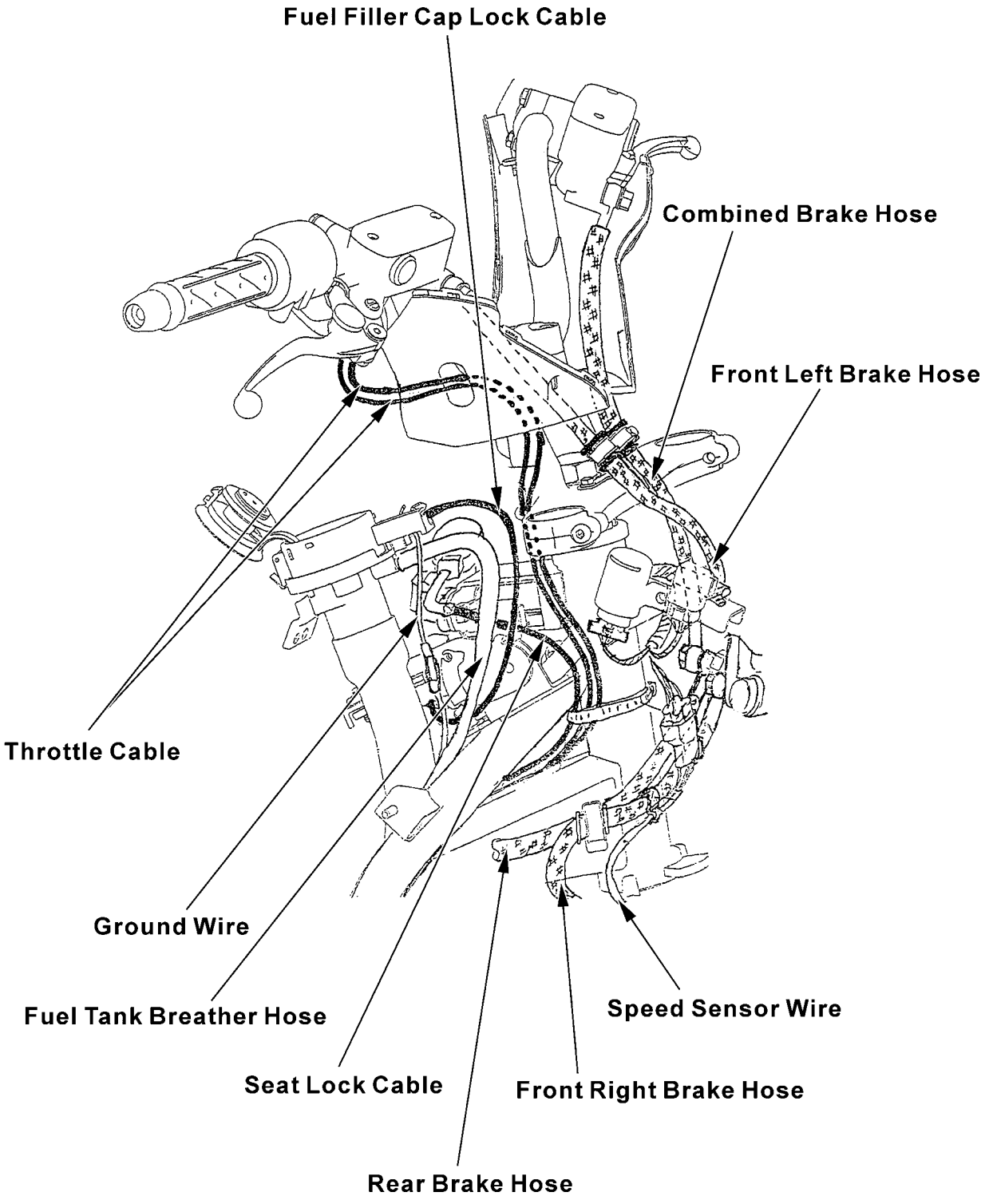

Right Handlebar Switch
Left Handlebar Switch
Front Brake Hose
Combined Brake Hose
Harness Wire
Meter Connector
Front Right Turn Signal Light Connector
Headlight Connector
Front Left Turn Signal Light Connector


Front Left Turn Signal Wire
Front Right Turn Signal Wire
Headlight/Position Light Wire

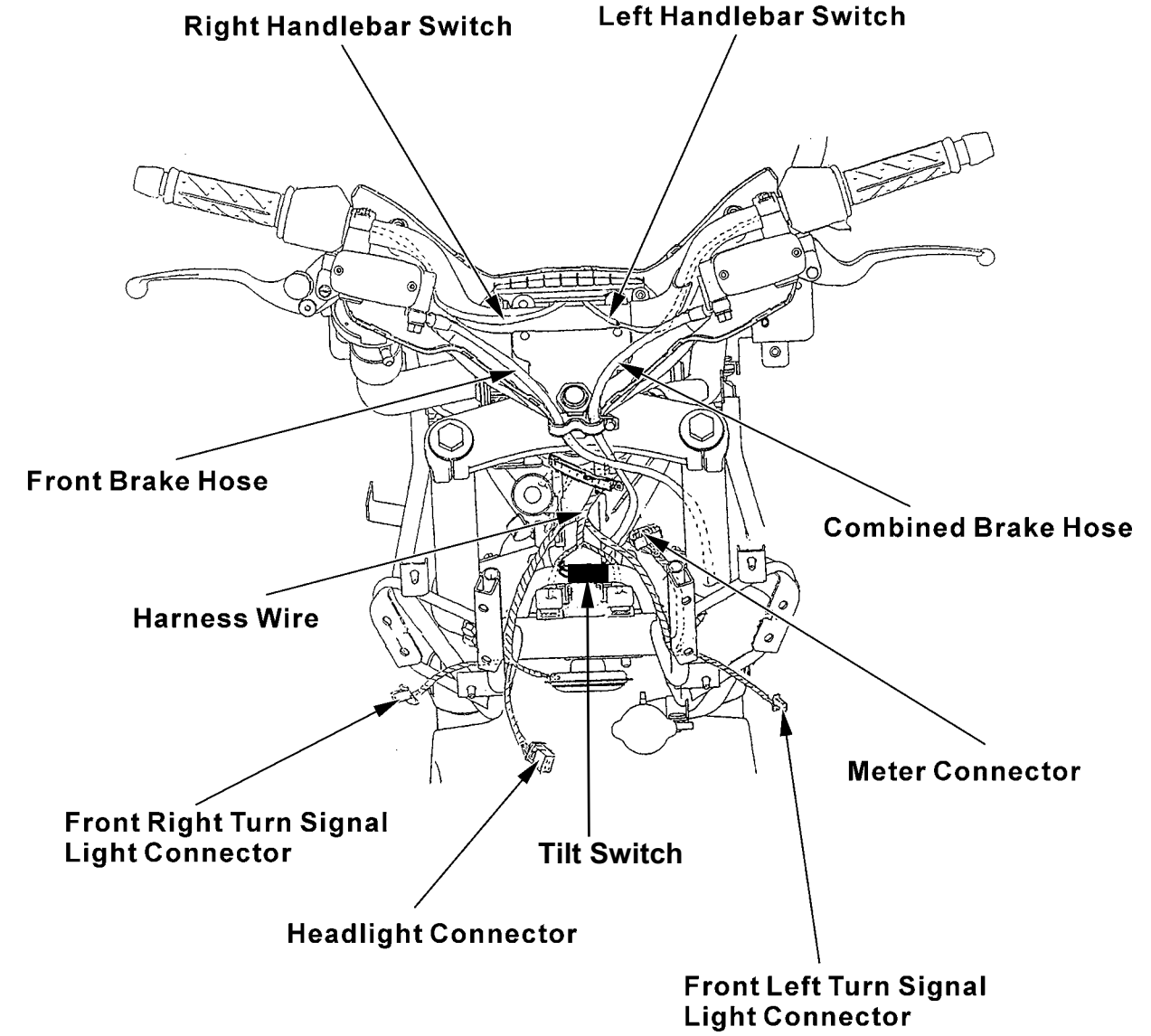

Battery Positive Cable
Seat Lock Light Switch
Battery Negative Cable
Taillight Connector
Hazard Unit
Ignition Control Module Wire
Hazard Unit Wire
Regulator/Rectifier Wire
Frame Ground Cable
Harness Wire
Starter Motor Wire
Ignition Control Module
Regulator/Rectifier Wire
Regulator/Rectifier

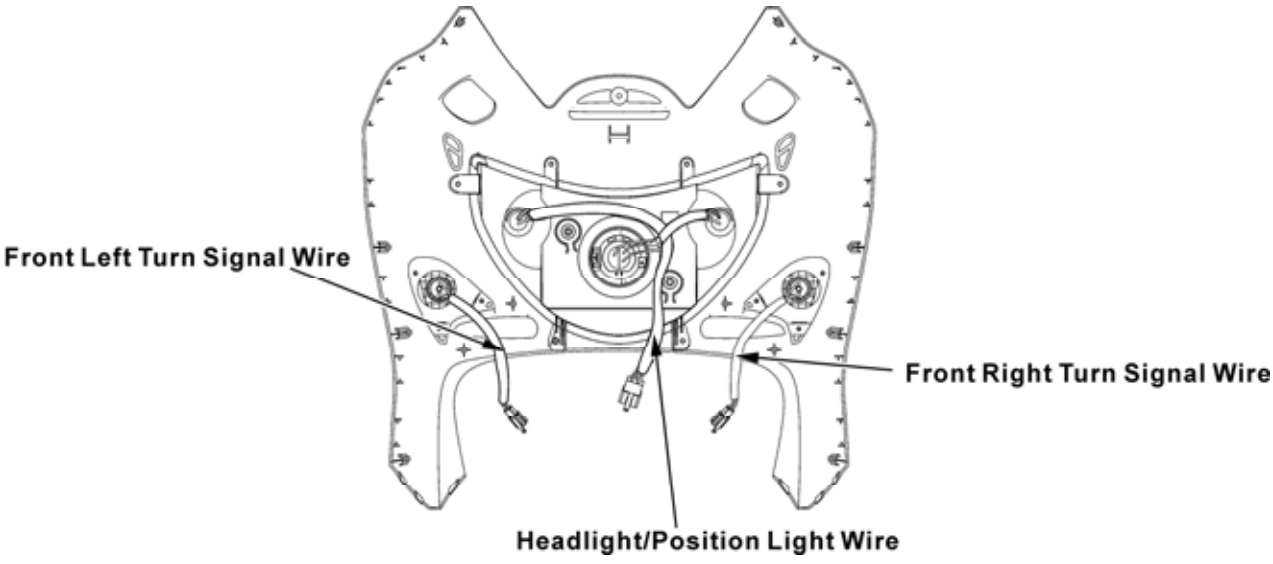

Taillight/Brake light Wire
Rear Right Turn Signal Wire
Rear Left Turn Signal Wire
License Light Wire

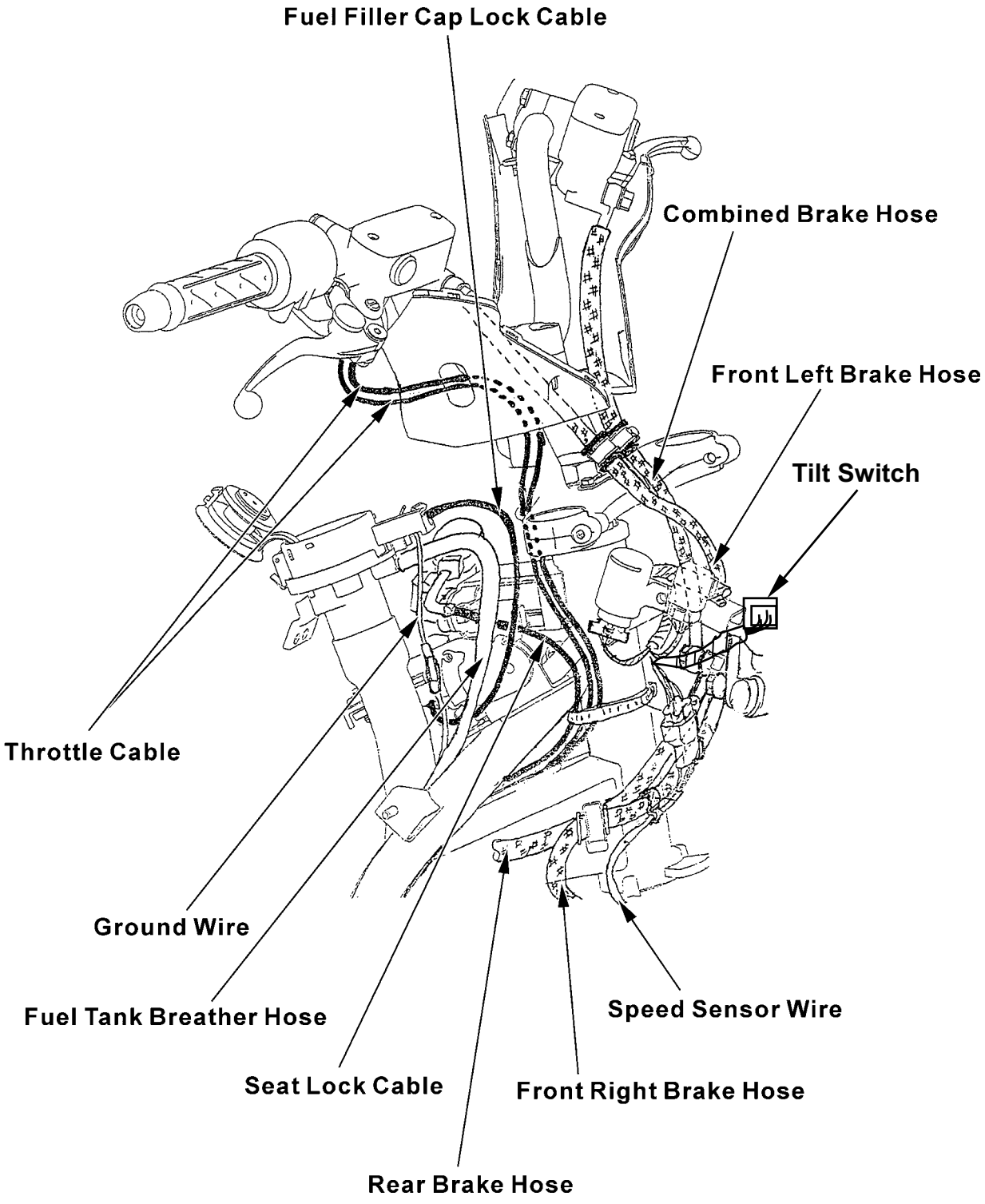

Fuel Filler Cap Lock Cable
Left Handlebar Switch
Right Handlebar Switch
Ignition Switch Connector
Seat Lock Cable
Ground Wire
Fuel Filler Hose
Fan Motor E.M.I. Wire
Harness Wire
Throttle Cable

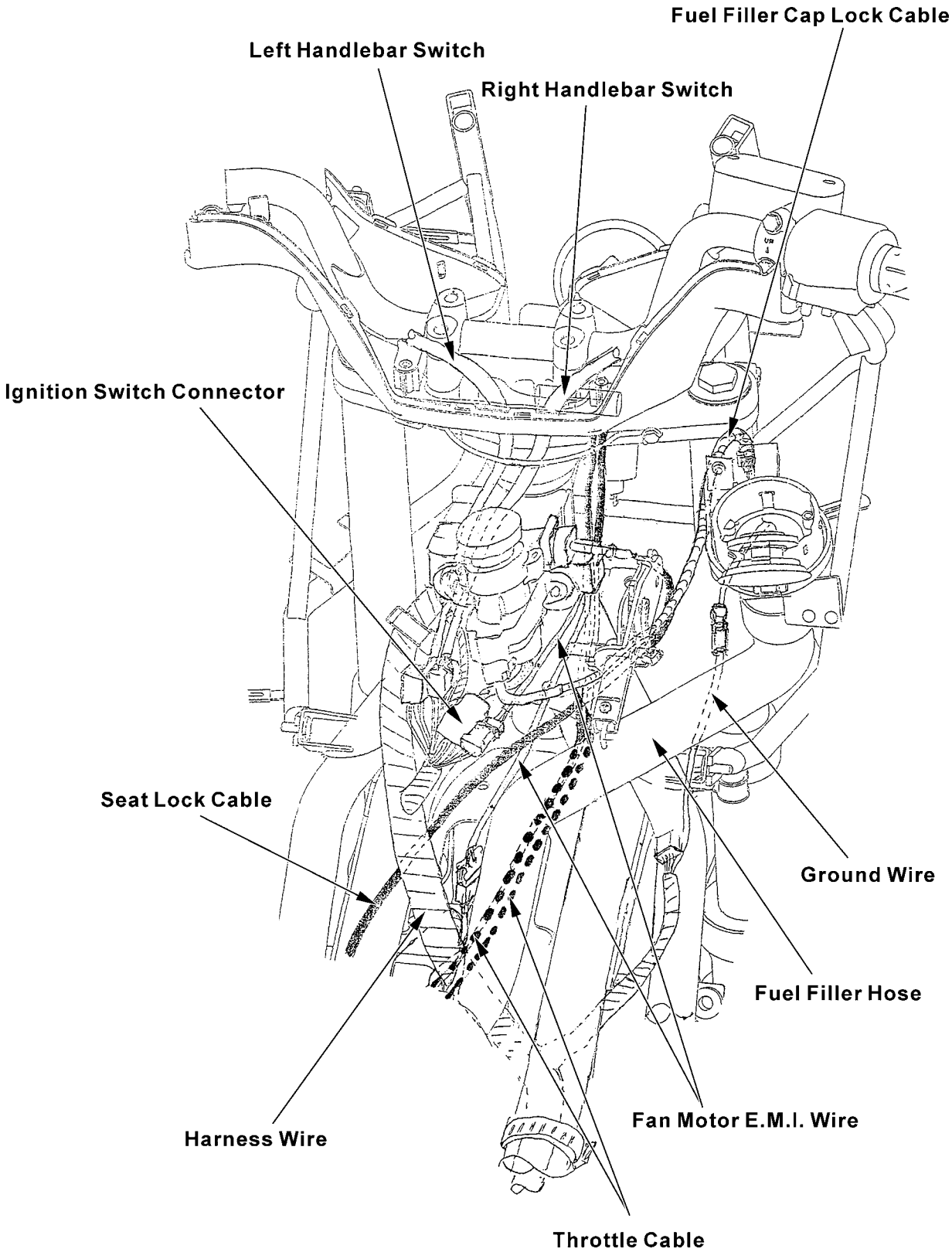

Fuel Filler Cap Lock Cable
Combined Brake Hose
Front Left Brake Hose
Throttle Cable
Ground Wire
Fuel Tank Breather Hose
Seat Lock Cable
Rear Brake Hose
Front Right Brake Hose
Speed Sensor Wire

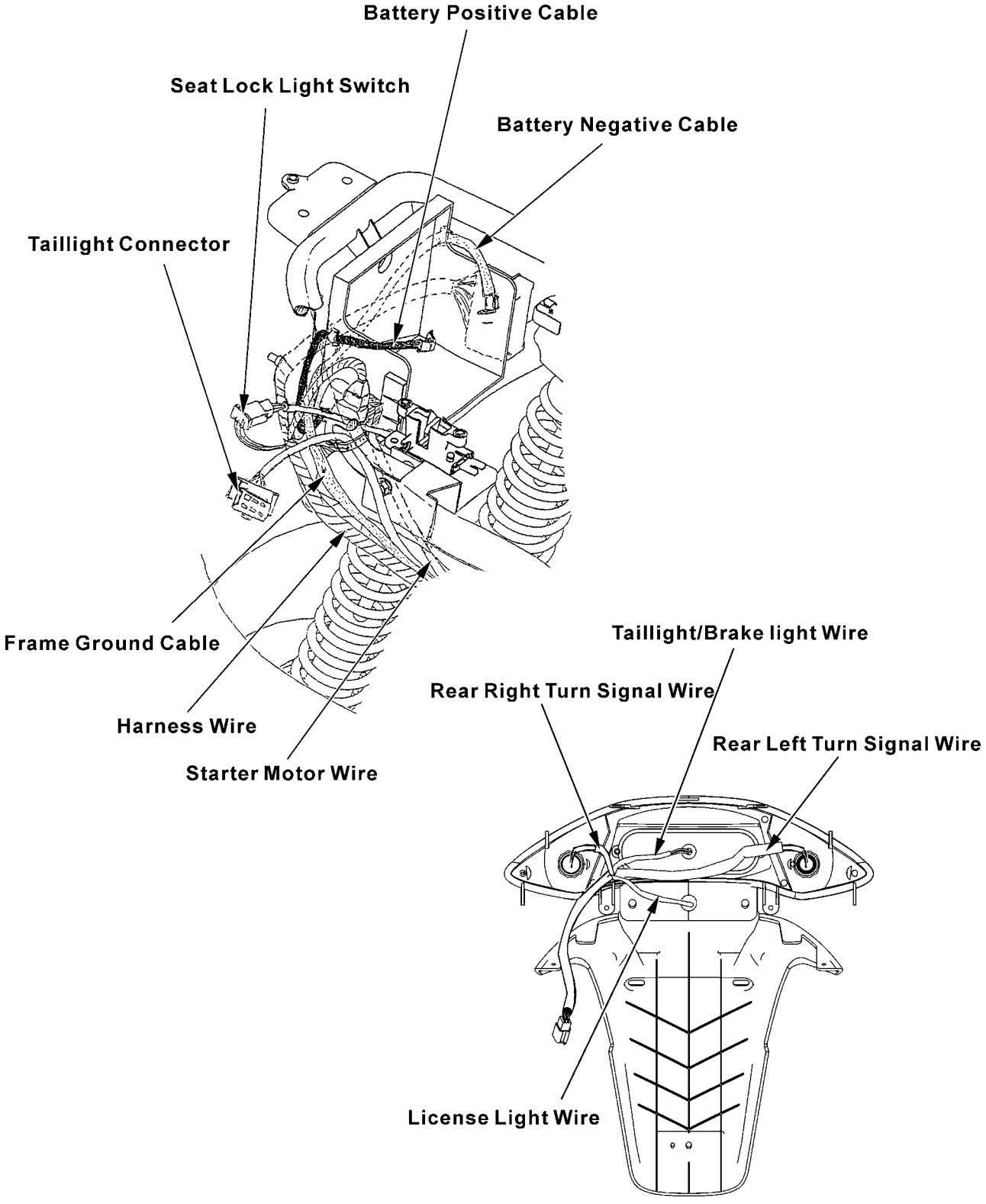
CABLE & HARNESS ROUTING (XCITING 250 AFI)

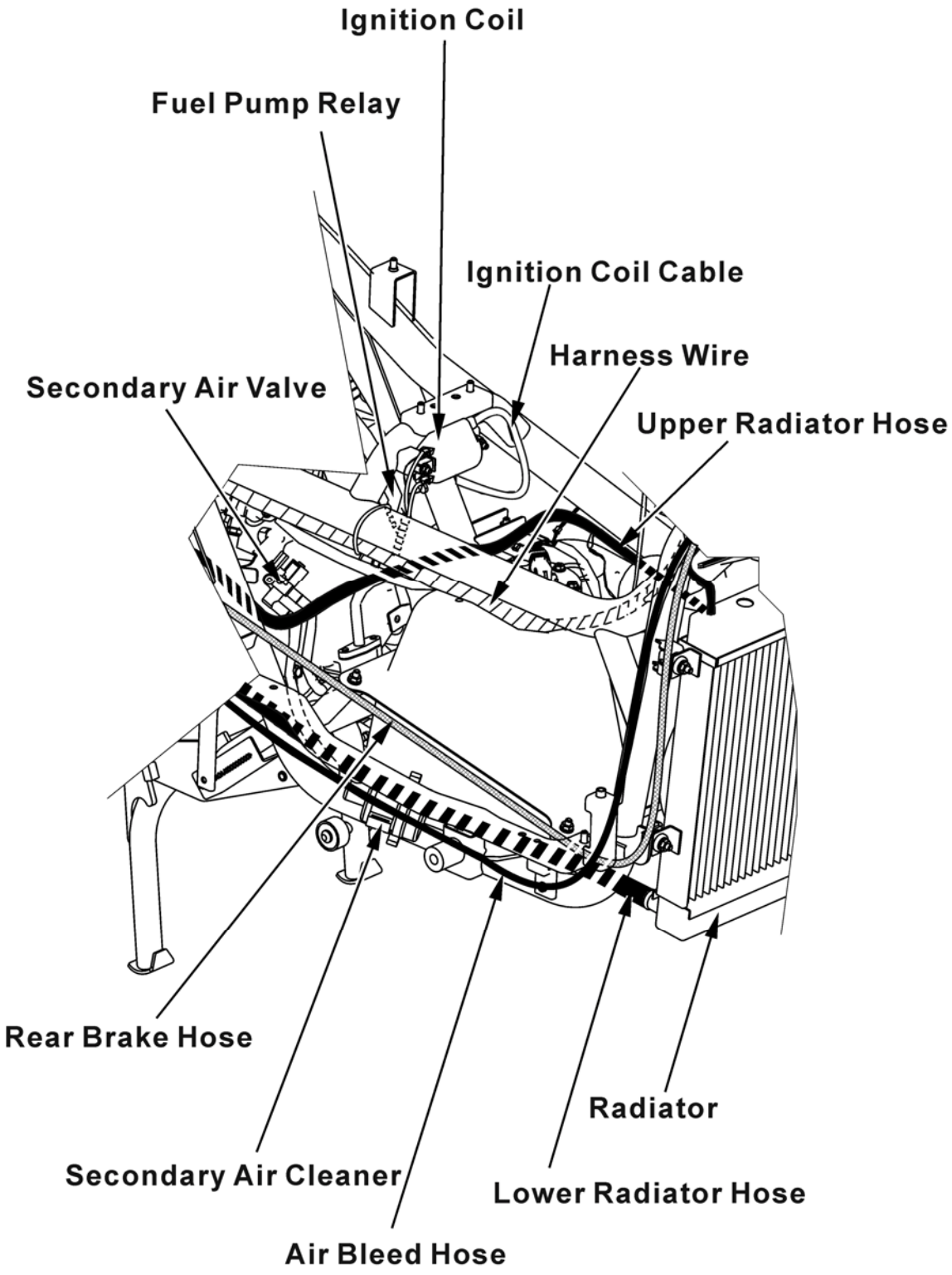


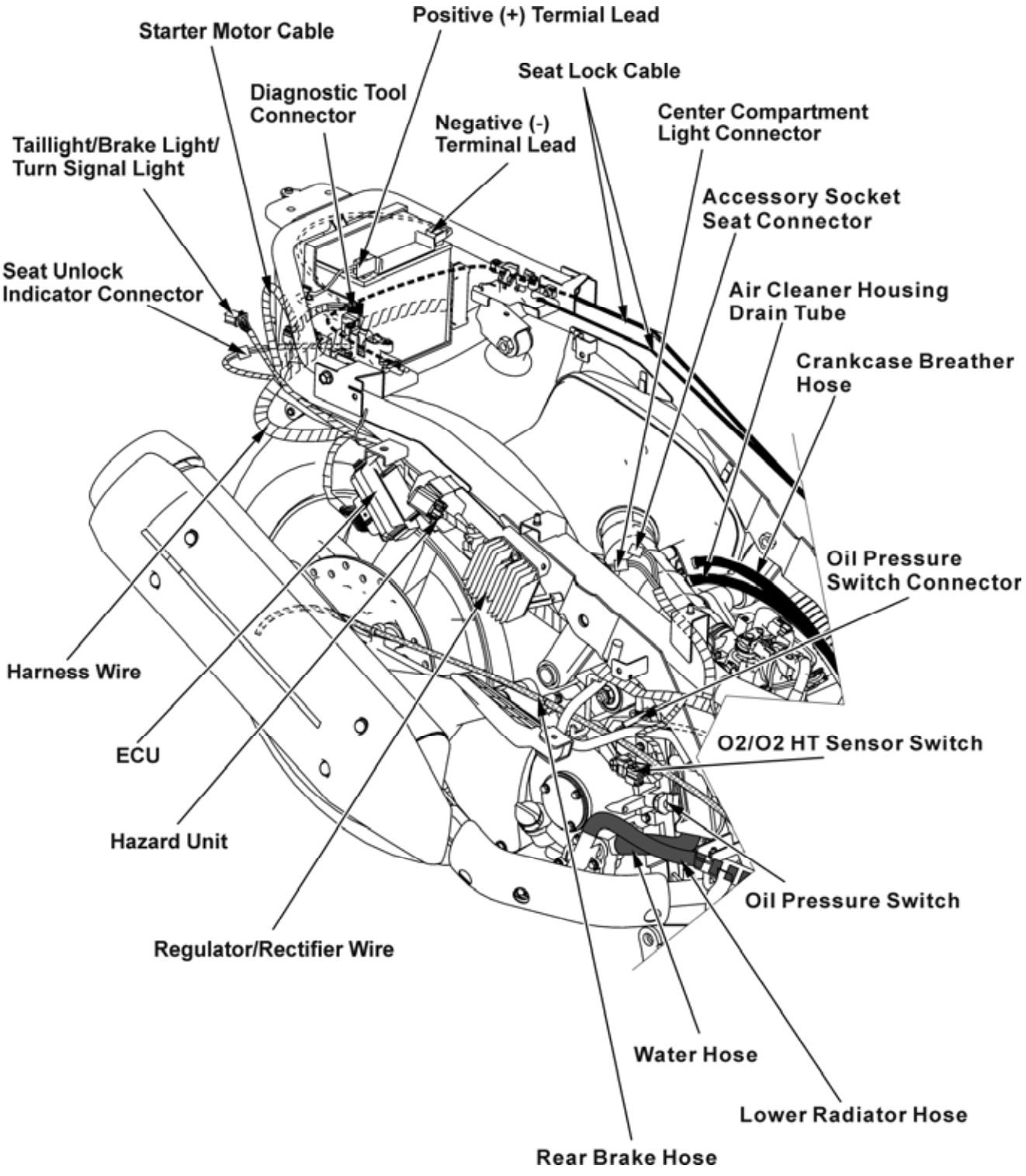


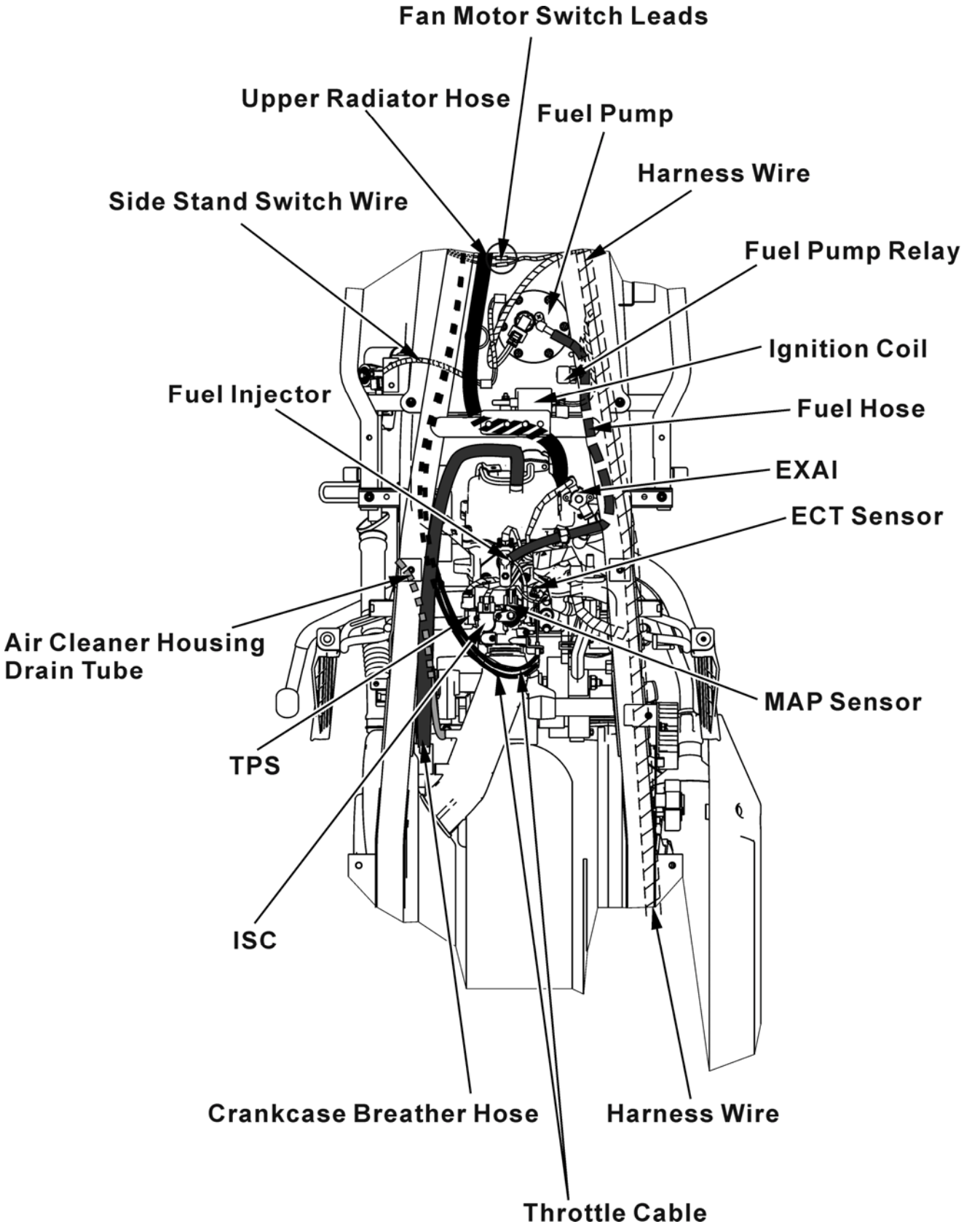

Fuel Filler Cap Lock Cable
Combined Brake Hose
Front Left Brake Hose
Tilt Switch
Throttle Cable
Ground Wire
Fuel Tank Breather Hose
Seat Lock Cable
Rear Brake Hose
Front Right Brake Hose
Speed Sensor Wire

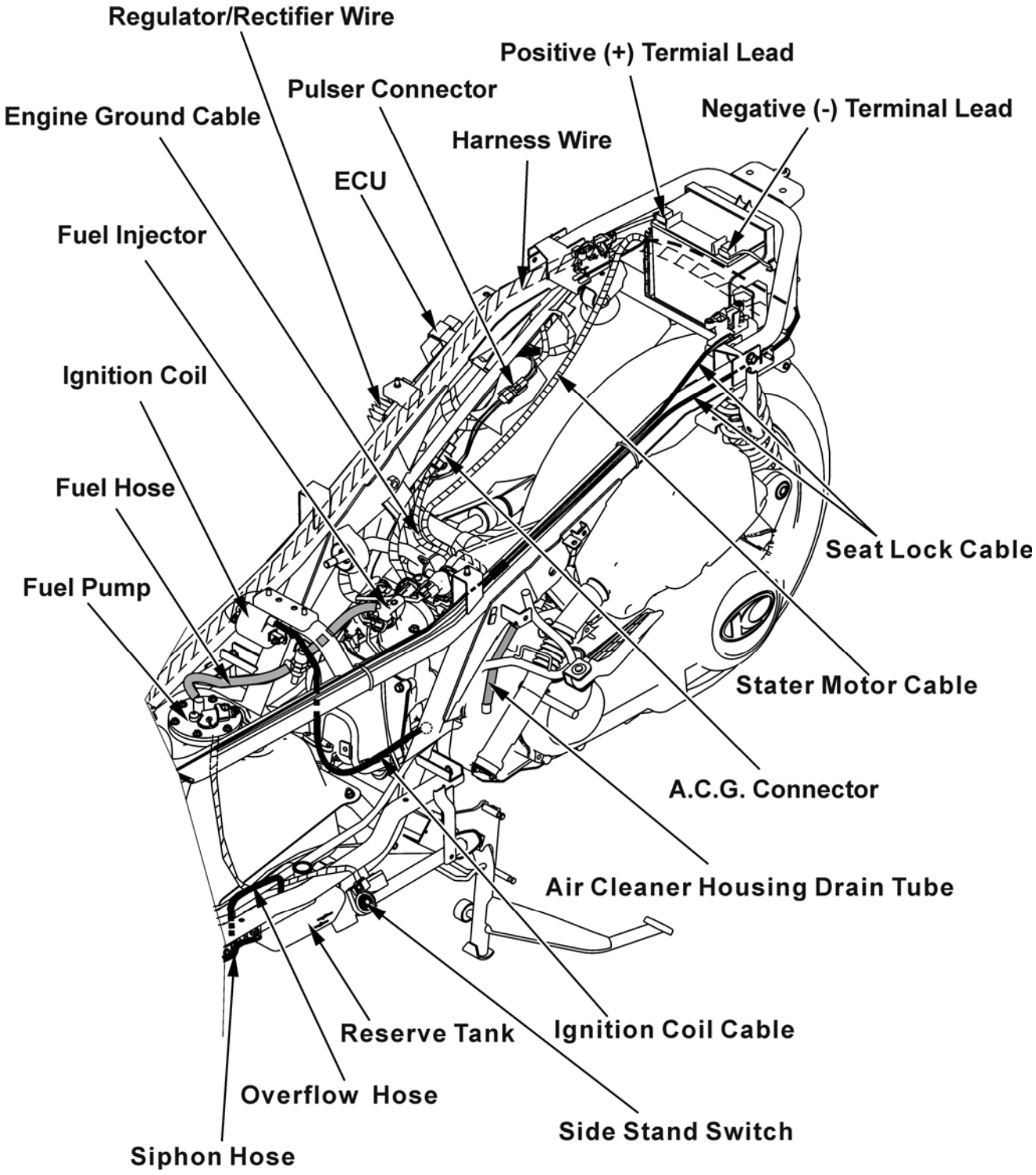

Fuel Filler Cap Lock Cable
Left Handlebar Switch
Right Handlebar Switch
Ignition Switch Connector
Seat Lock Cable
Ground Wire
Fuel Filler Hose
Fan Motor E.M.I. Wire
Harness Wire
Throttle Cable


Battery Positive Cable
Seat Lock Light Switch
Battery Negative Cable
Taillight Connector
Frame Ground Cable
Harness Wire
Starter Motor Wire
Taillight/Brake light Wire
Rear Right Turn Signal Wire
Rear Left Turn Signal Wire
License Light Wire


Ignition Coil
Fuel Pump Relay
Ignition Coil Cable
Harness Wire
Secondary Air Valve
Upper Radiator Hose
Rear Brake Hose
Radiator
Secondary Air Cleaner
Lower Radiator Hose
Air Bleed Hose

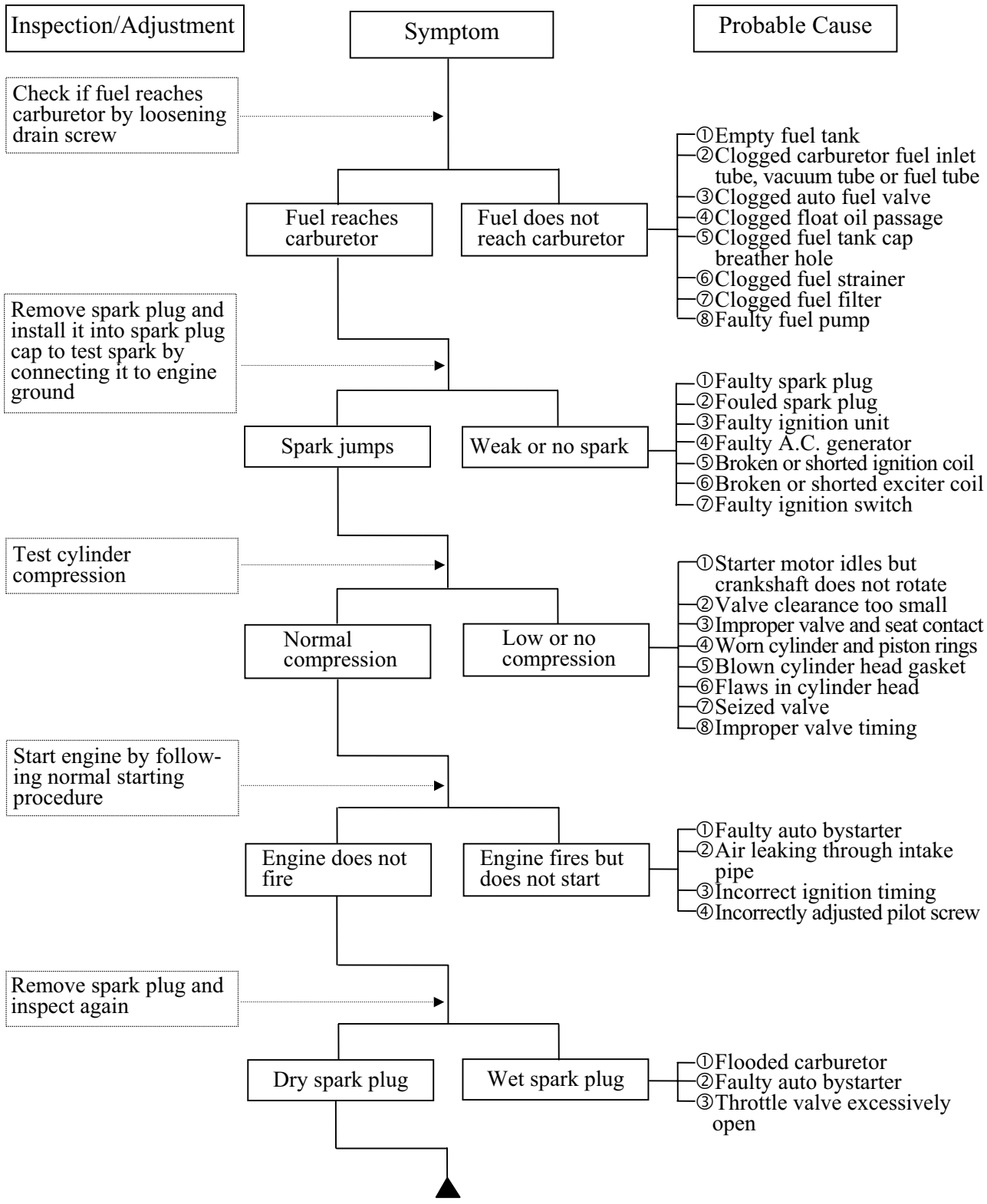

Starter Motor Cable
Positive (+) Termial Lead
Seat Lock Cable
Diagnostic Tool Connector
Negative (-) Terminal Lead
Center Compartment Light Connector
Taillight/Brake Light/ Turn Signal Light
Accessory Socket Seat Connector
Seat Unlock Indicator Connector
Air Cleaner Housing Drain Tube
Crankcase Breather Hose
Oil Pressure Switch Connector
Harness Wire
ECU
O2/O2 HT Sensor Switch
Hazard Unit
Oil Pressure Switch
Regulator/Rectifier Wire
Water Hose
Lower Radiator Hose
Rear Brake Hose


Fan Motor Switch Leads
Upper Radiator Hose
Fuel Pump
Harness Wire
Side Stand Switch Wire
Fuel Pump Relay
Ignition Coil
Fuel Injector
Fuel Hose
EXAI
ECT Sensor
Air Cleaner Housing
Drain Tube
MAP Sensor
TPS
ISC
Crankcase Breather Hose
Harness Wire
Throttle Cable

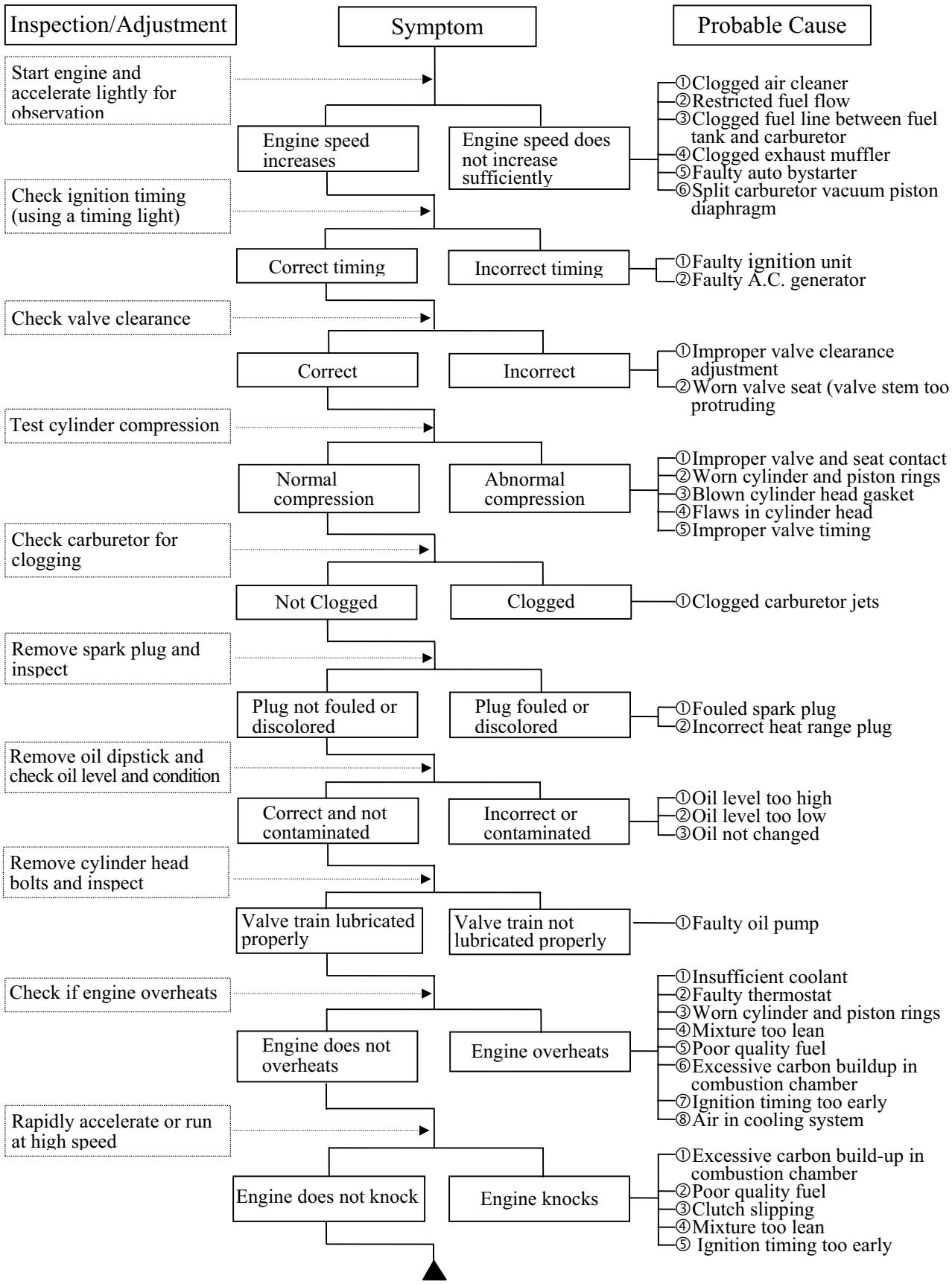

Regulator/Rectifier Wire
Positive (+) Termial Lead
Pulser Connector
Engine Ground Cable
Negative (-) Terminal Lead
Harness Wire
ECU
Fuel Injector
Ignition Coil
Fuel Hose
Seat Lock Cable
Fuel Pump
Stater Motor Cable
A.C.G. Connector
Air Cleaner Housing Drain Tube
Reserve Tank
Ignition Coil Cable
Overflow Hose
Side Stand Switch
Siphon Hose

TROUBLESHOOTING (XCITING 500/250)

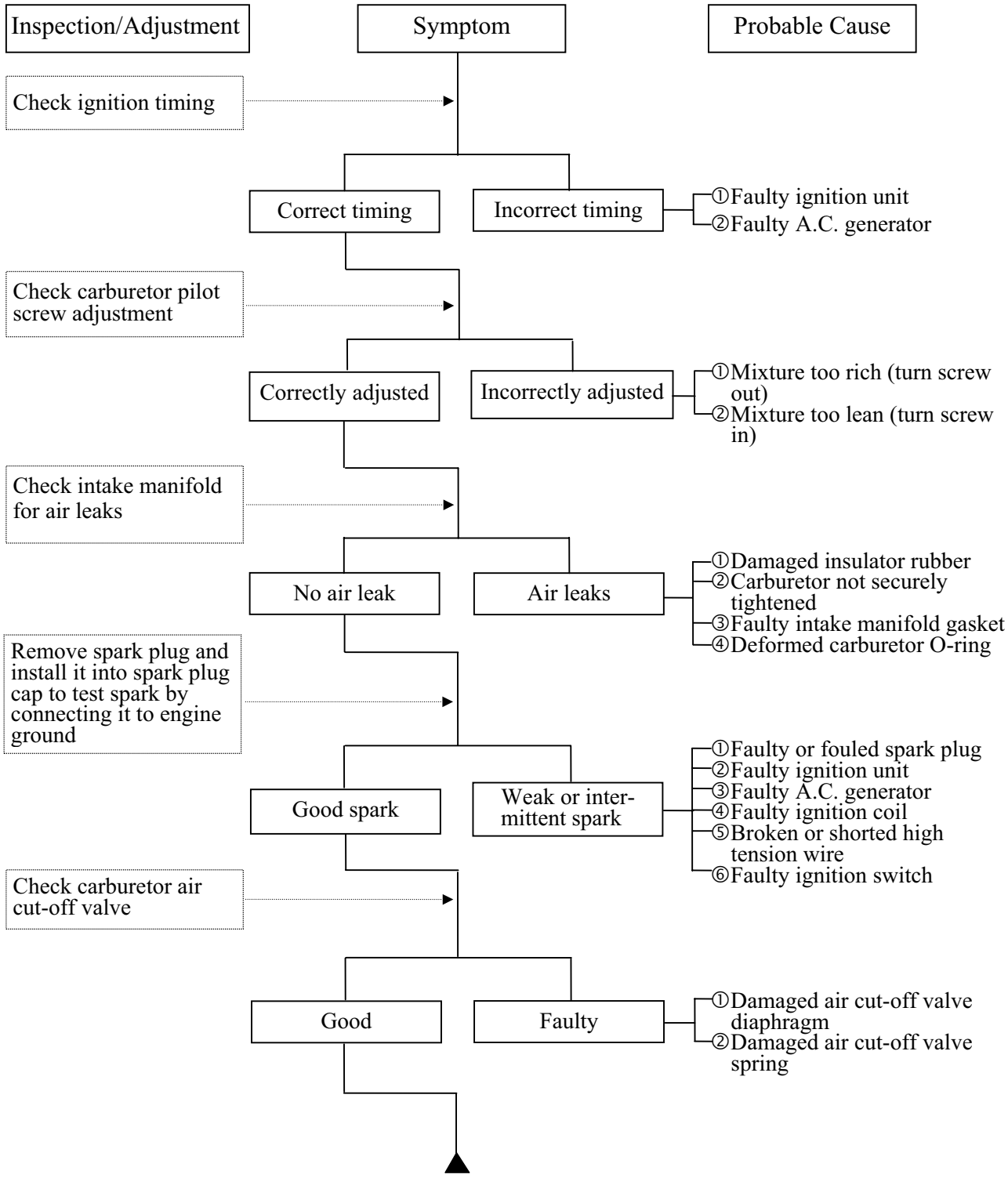
ENGINE WILL NOT START OR IS HARD TO START


Inspection/Adjustment
Symptom
Probable Cause
Check if fuel reaches carburetor by loosening drain screw
Fuel reaches carburetor
Fuel does not reach carburetor
①Empty fuel tank
②Clogged carburetor fuel inlet tube, vacuum tube or fuel tube
③Clogged auto fuel valve
④Clogged float oil passage
⑤Clogged fuel tank cap breather hole
⑥Clogged fuel strainer
⑦Clogged fuel filter
⑧Faulty fuel pump
Remove spark plug and install it into spark plug cap to test spark by connecting it to engine ground
Spark jumps
Weak or no spark
①Faulty spark plug
②Fouled spark plug
③Faulty ignition unit
④Faulty A.C. generator
⑤Broken or shorted ignition coil
⑥Broken or shorted exciter coil
⑦Faulty ignition switch
Test cylinder compression
Normal compression
Low or no compression
①Starter motor idles but crankshaft does not rotate
②Valve clearance too small
③Improper valve and seat contact
④Worn cylinder and piston rings
⑤Blown cylinder head gasket
⑥Flaws in cylinder head
⑦Seized valve
⑧Improper valve timing
Start engine by following normal starting procedure
Engine does not fire
Engine fires but does not start
①Faulty auto bystarter
②Air leaking through intake pipe
③Incorrect ignition timing
④Incorrectly adjusted pilot screw
Remove spark plug and inspect again
Dry spark plug
Wet spark plug
①Flooded carburetor
②Faulty auto bystarter
③Throttle valve excessively open

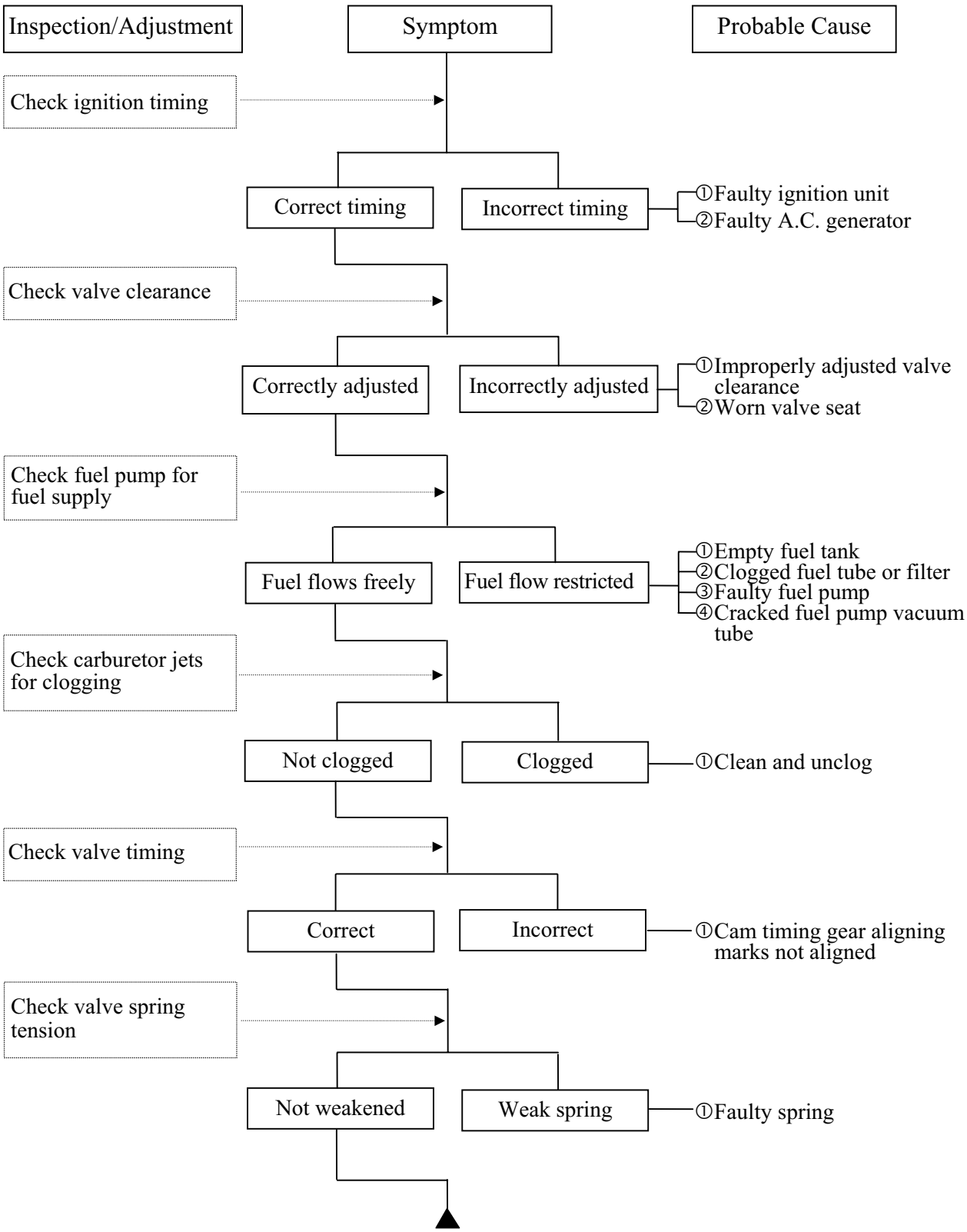
ENGINE LACKS POWER



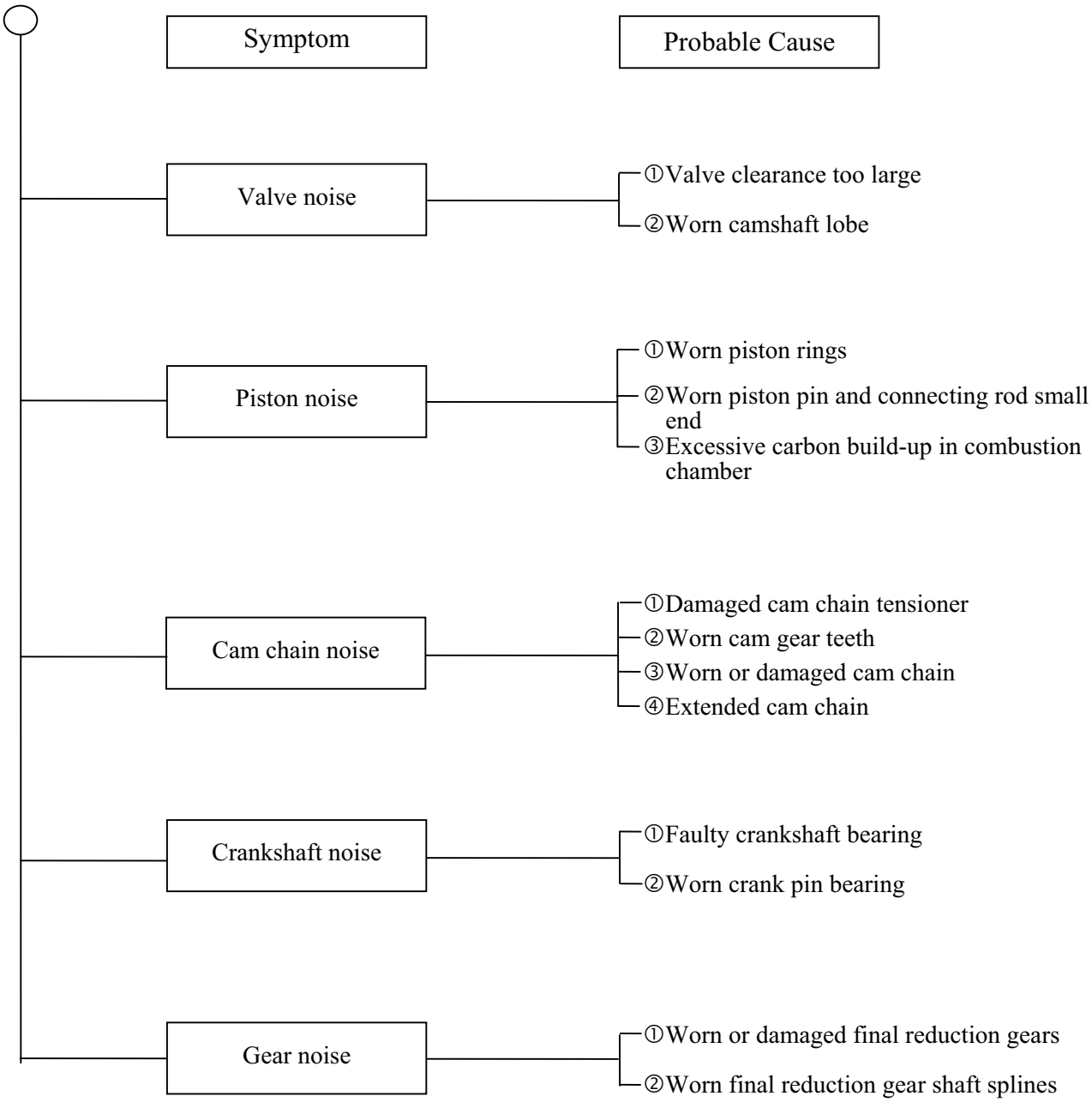
POOR PERFORMANCE (ESPECIALLY AT IDLE AND LOW SPEEDS)



POOR PERFORMANCE (AT HIGH SPEED)



ENGINE NOISE

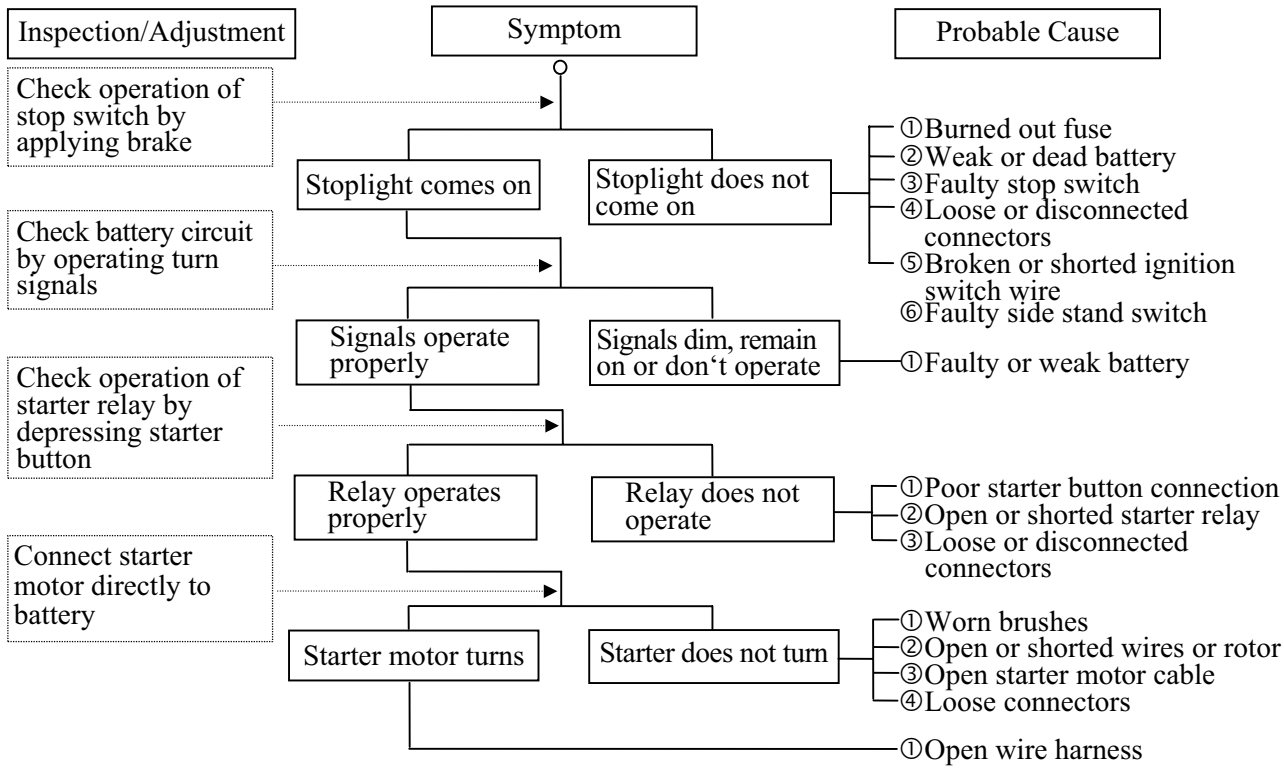


CLUTCH, DRIVE AND DRIVEN PULLEYS

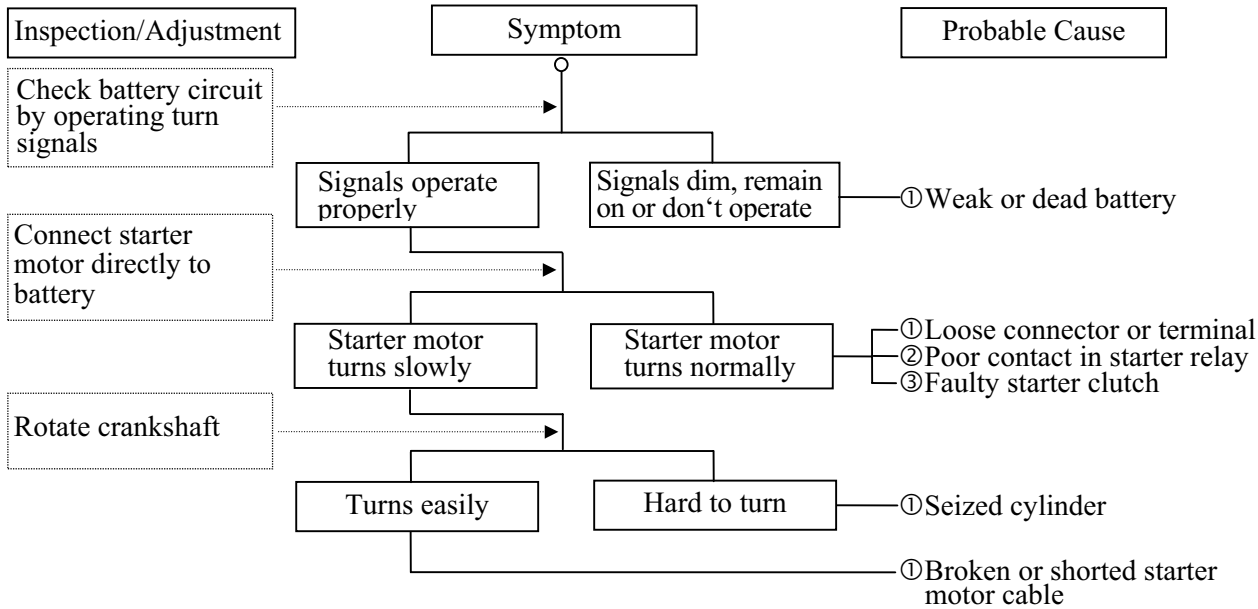
Symptom	Probable Cause
Engine starts but motorcycle does not move	①Worn or slipping drive belt ②Broken ramp plate ③Broken drive face spring ④Separated clutch lining ⑤Damaged driven pulley shaft splines ⑥Damaged final gear ⑦Seized final gear
Motorcycle creeps or engine starts but soon stops or seems to rush out (Rear wheel rotates when engine idles)	①Broken shoe spring ②Clutch outer and clutch weight stuck ③Seized pivot
Engine lacks power at start of a grade(poor slope performance)	①Worn or slipping drive belt ②Worn weight rollers ③Seized drive pulley bearings ④Weak driven face spring ⑤Worn or seized driven pulley bearings
Engine lacks power at high speed	①Worn or slipping drive belt ②Worn weight rollers ③Worn or seized driven pulley bearings
There is abnormal noise or smell while running	①Oil or grease fouled drive belt ②Worn drive belt ③Weak driven face spring ④Worn or seized driven pulley bearings

STARTER MOTOR

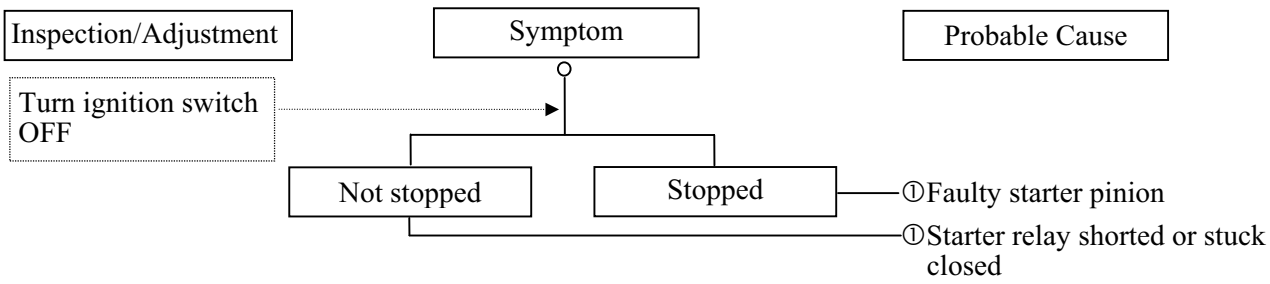
1. Starter motor won't turn


Inspection/Adjustment
Symptom
Probable Cause
Check operation of stop switch by applying brake
Stoplight comes on
Stoplight does not come on
①Burned out fuse
②Weak or dead battery
③Faulty stop switch
④Loose or disconnected connectors
⑤Broken or shorted ignition switch wire
⑥Faulty side stand switch
Check battery circuit by operating turn signals
Signals operate properly
Signals dim, remain on or don't operate
①Faulty or weak battery
Check operation of starter relay by depressing starter button
Relay operates properly
Relay does not operate
①Poor starter button connection
②Open or shorted starter relay
③Loose or disconnected connectors
Connect starter motor directly to battery
Starter motor turns
Starter does not turn
①Worn brushes
②Open or shorted wires or rotor
③Open starter motor cable
④Loose connectors
①Open wire harness

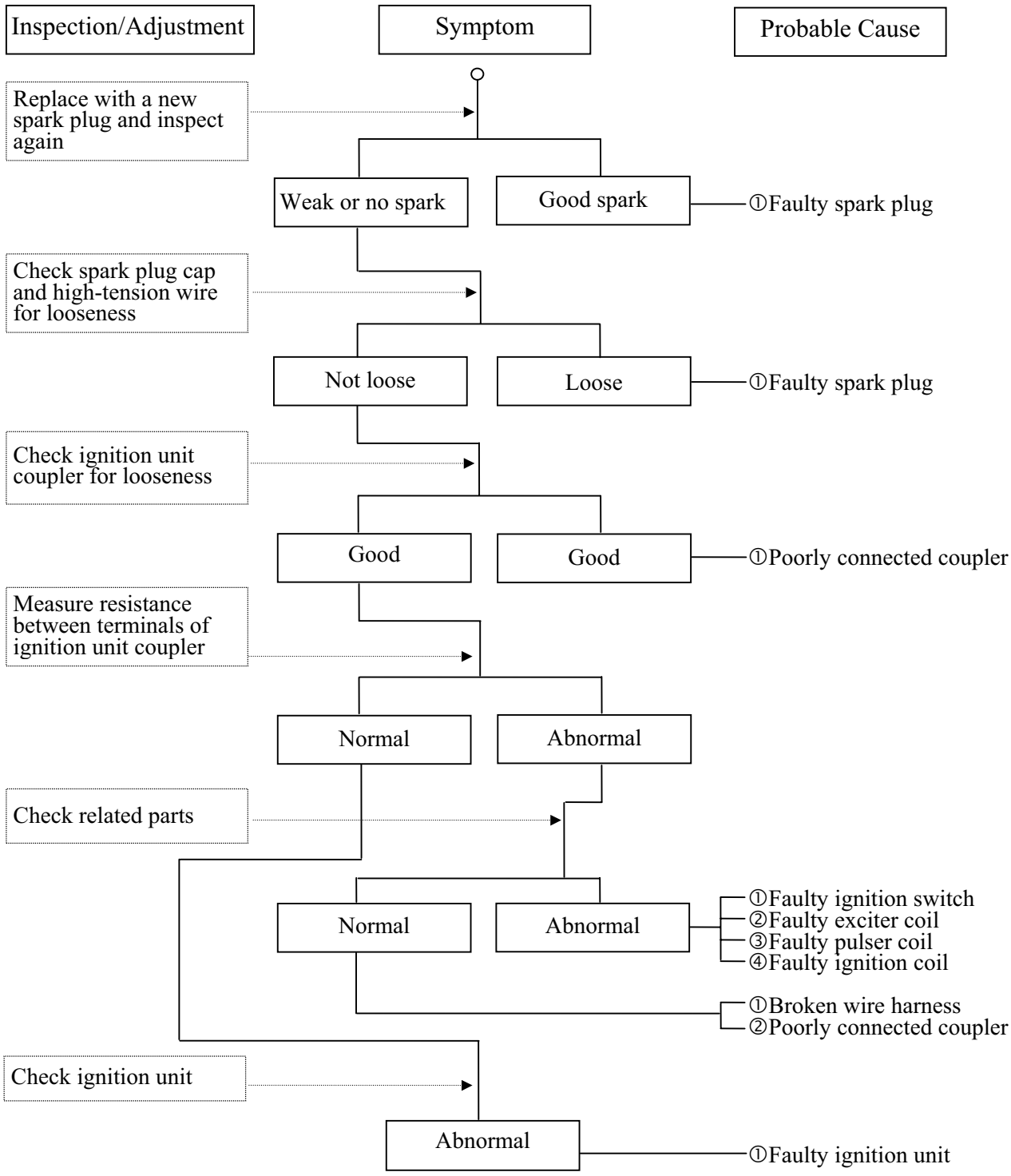
2. Starter motor turns slowly or idles



3. Starter motor does not stop turning

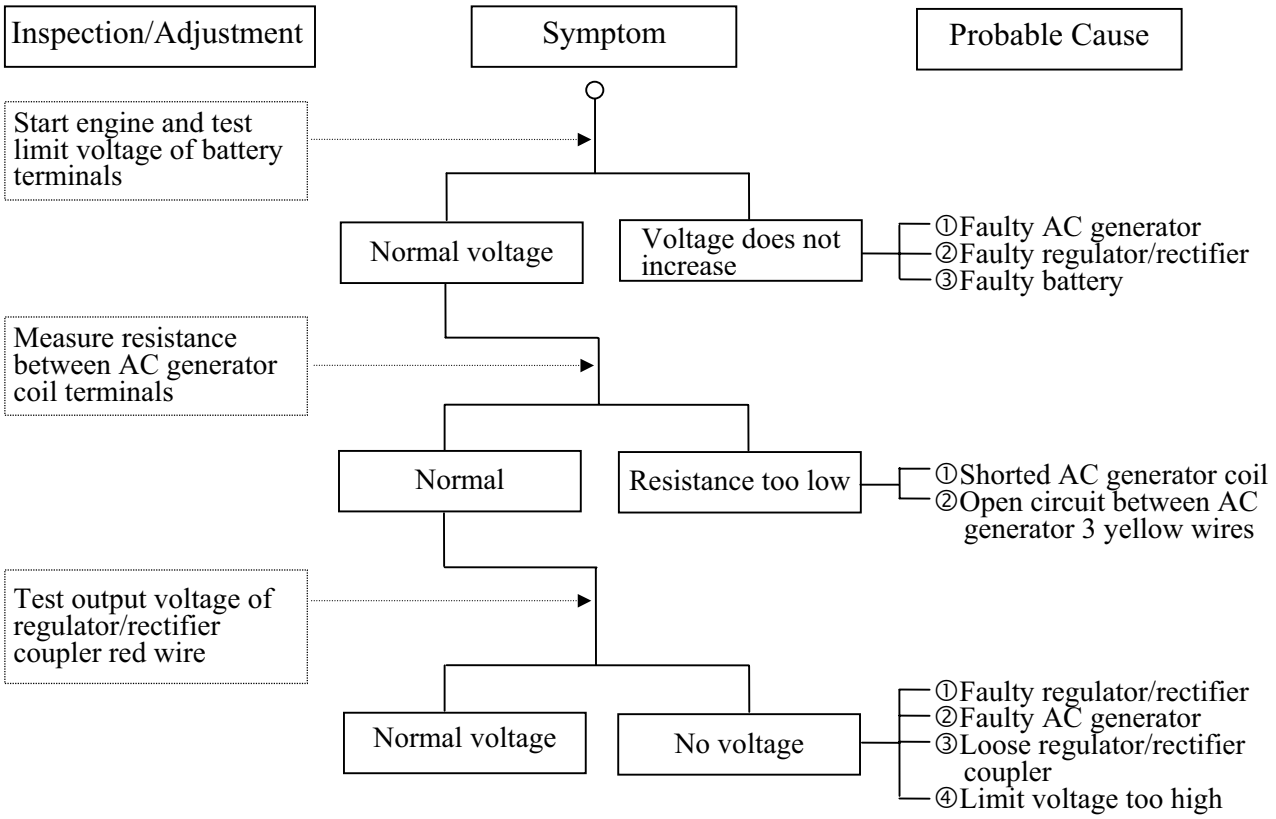


NO SPARK AT SPARK PLUG

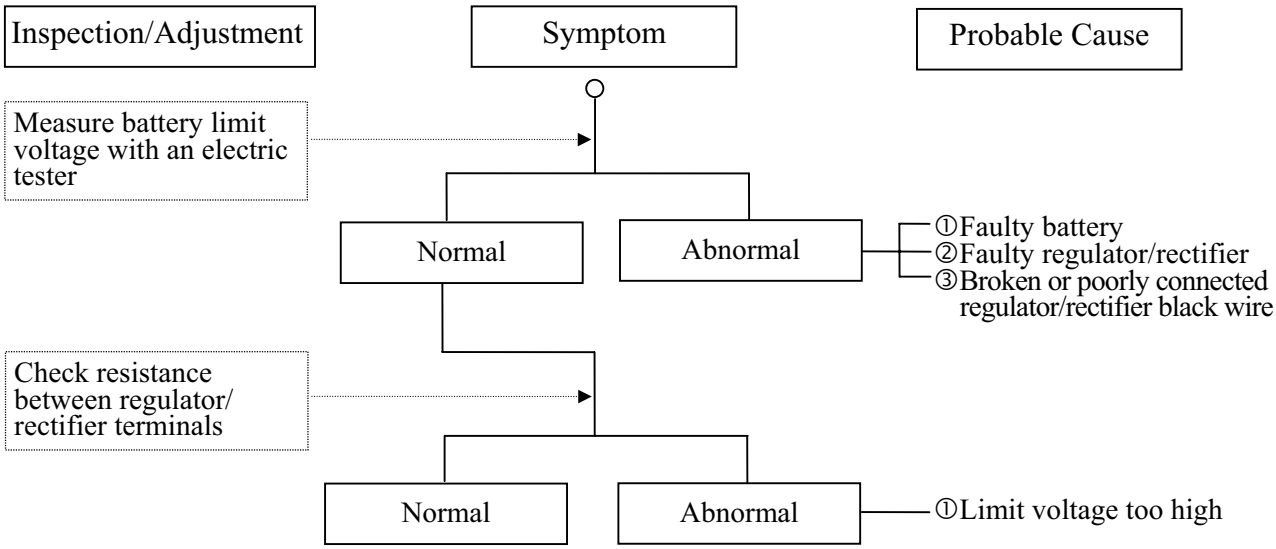


POOR CHARGING (BATTERY OVER DISCHARGING OR OVERCHARGING)

Undercharging

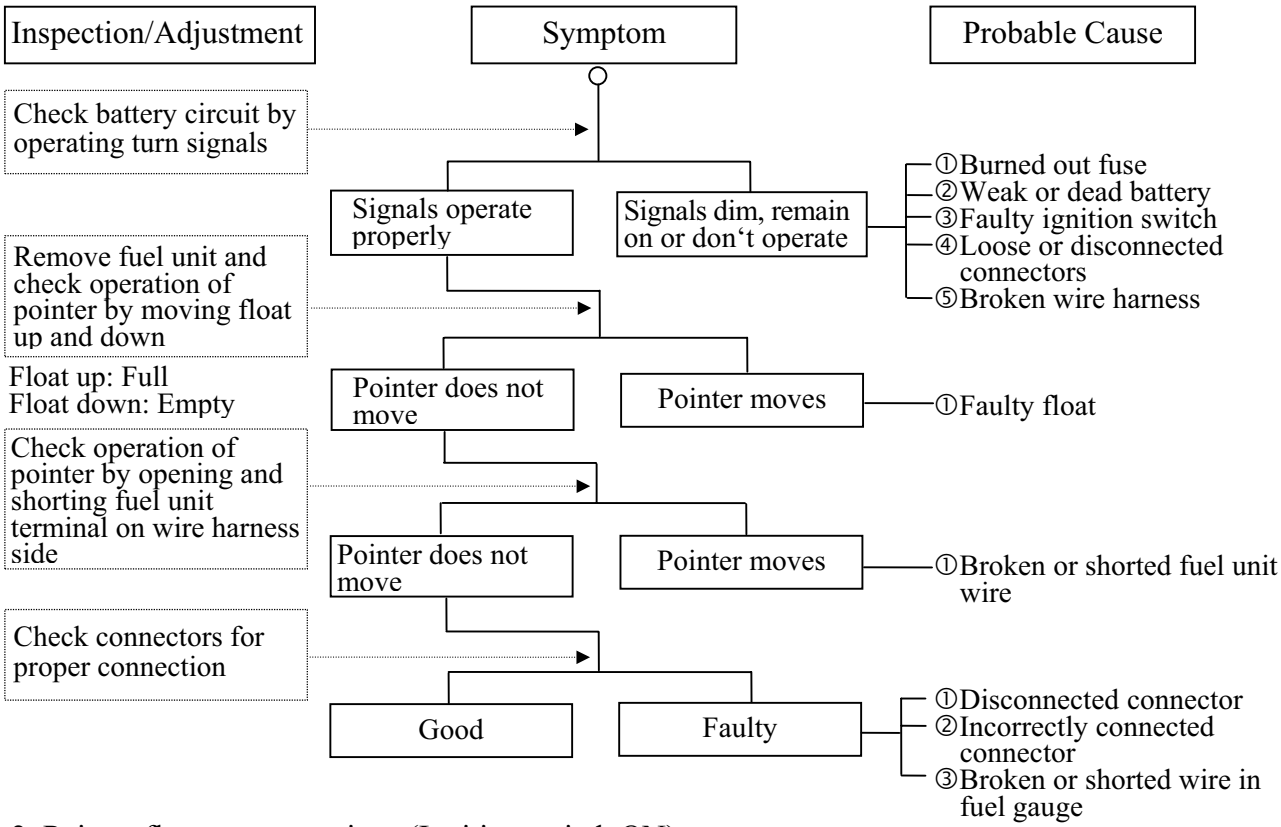


Overcharging

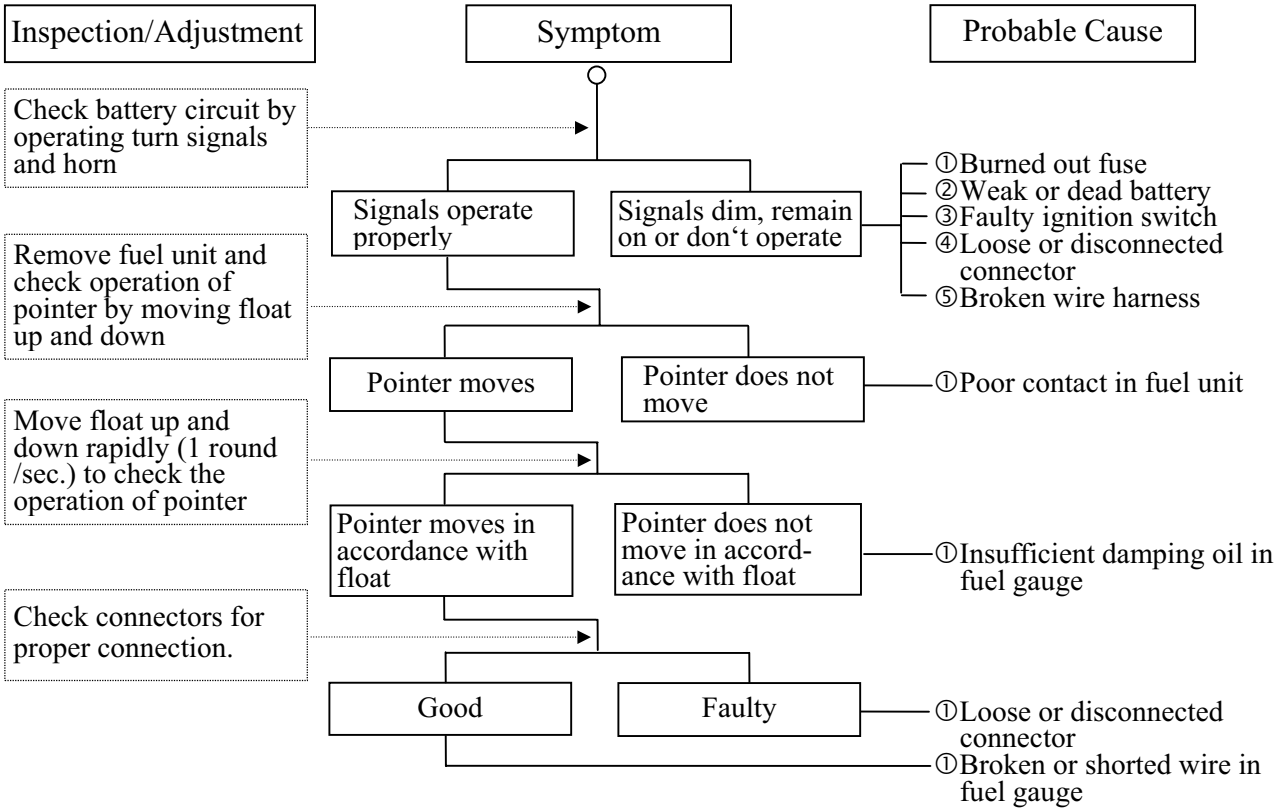


FUEL GAUGE

1. Pointer does not register correctly (Ignition switch ON)


Inspection/Adjustment
Symptom
Probable Cause
Check battery circuit by operating turn signals
Signals operate properly
Signals dim, remain on or don't operate
①Burned out fuse
②Weak or dead battery
③Faulty ignition switch
④Loose or disconnected connectors
⑤Broken wire harness
Remove fuel unit and check operation of pointer by moving float up and down
Float up: Full
Float down: Empty
Pointer does not move
Pointer moves
①Faulty float
Check operation of pointer by opening and shorting fuel unit terminal on wire harness side
Pointer does not move
Pointer moves
①Broken or shorted fuel unit wire
Check connectors for proper connection
Good
Faulty
①Disconnected connector
②Incorrectly connected connector
③Broken or shorted wire in fuel gauge

2. Pointer fluctuates or swings (Ignition switch ON)


Inspection/Adjustment
Symptom
Probable Cause
Check battery circuit by operating turn signals and horn
Signals operate properly
Signals dim, remain on or don't operate
①Burned out fuse
②Weak or dead battery
③Faulty ignition switch
④Loose or disconnected connector
⑤Broken wire harness
Remove fuel unit and check operation of pointer by moving float up and down
Pointer moves
Pointer does not move
①Poor contact in fuel unit
Move float up and down rapidly (1 round /sec.) to check the operation of pointer
Pointer moves in accordance with float
Pointer does not move in accord-ance with float
①Insufficient damping oil in fuel gauge
Check connectors for proper connection.
Good
Faulty
①Loose or disconnected connector
①Broken or shorted wire in fuel gauge

STEERING HANDLEBAR DOES NOT TRACK STRAIGHT

Symptom	Probable Cause
	(Front and rear tire pressures are normal)
Steering is heavy	①Steering stem nut too tight ②Broken steering steel balls
Front or rear wheel is wobbling	①Excessive wheel bearing play ②Bent rim ③Loose axle nut
Steering handlebar pulls to one side	①Misaligned front and rear wheels ②Bent front fork

POOR SUSPENSION PERFORMANCE

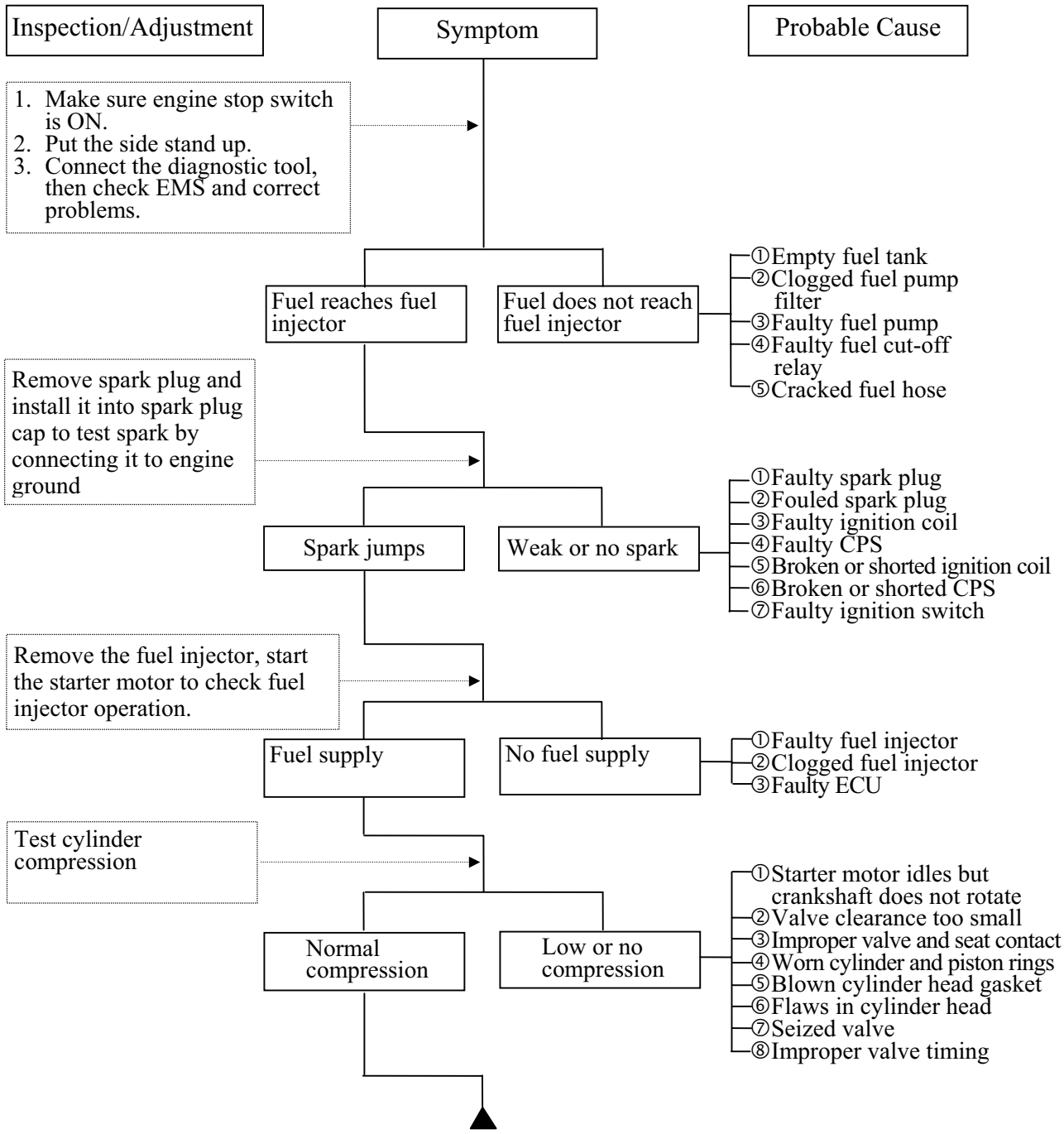
Symptom	Probable Cause
	(Front and rear tire pressures are normal)
Suspension is too soft	①Weak shock spring ②Excessive load ③Shock damper oil leaking
Suspension is too hard	①Bent fork tube or shock rod
Suspension is noisy	①Fork tube and slider binding ②Fork spring and slider binding ③Damaged shock stopper rubber ④Loose steering stem nut

POOR BRAKE PERFORMANCE

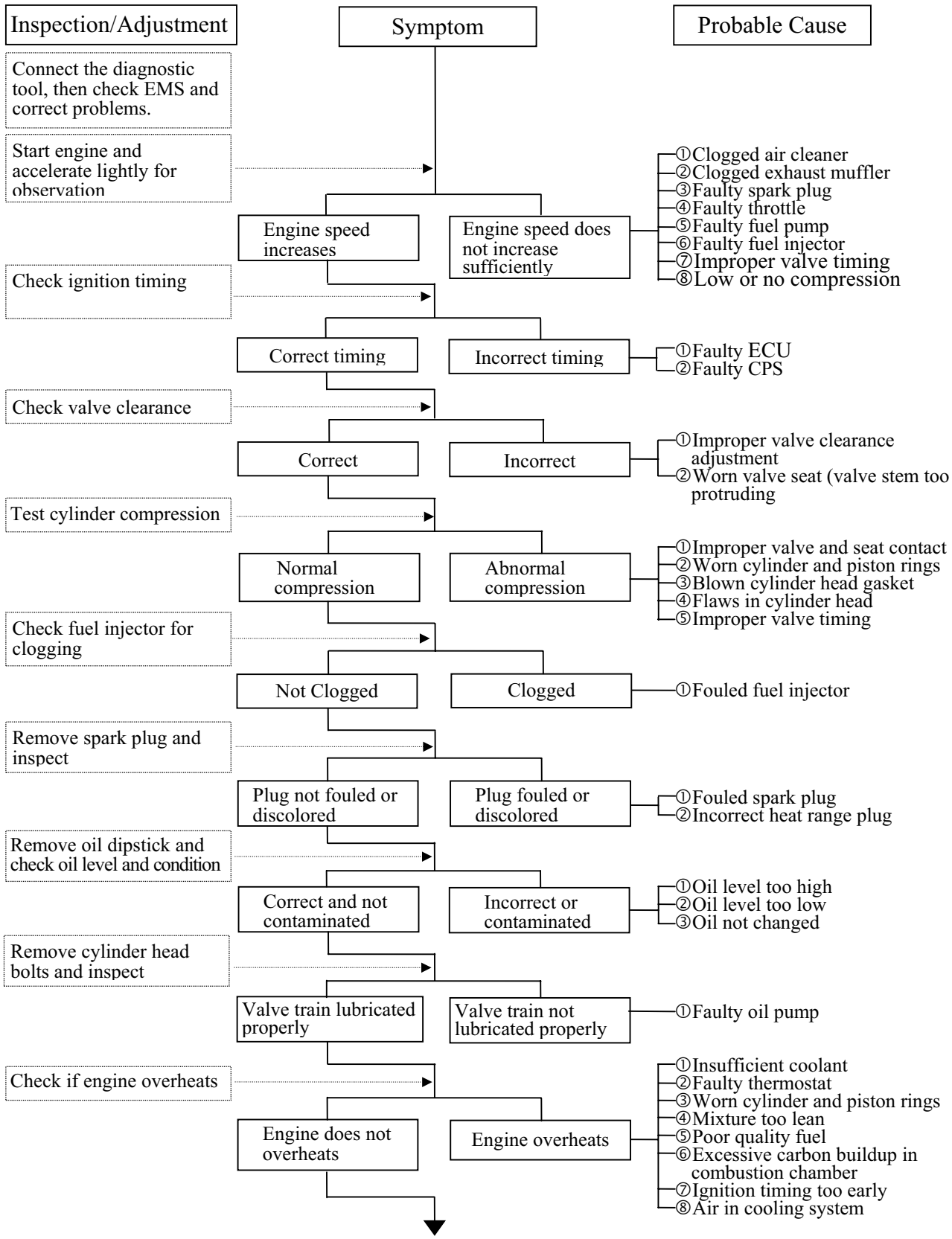
Symptom	Probable Cause
Soft brake lever	①Worn brake linings ②Foreign matter on brake linings ③Rough brake drum contacting area
Hard brake lever	①Worn brake linings ②Foreign matter on brake linings ③Rough brake drum contacting area
Hard to brake	①Worn brake linings ②Worn brake cam contacting area on
Poor brake performance	①Worn brake linings ②Foreign matter on brake linings
Brake squeaks	①Sluggish or elongated brake cables ②Brake shoes improperly contact ③Water and mud in brake system ④Oil or grease on brake linings

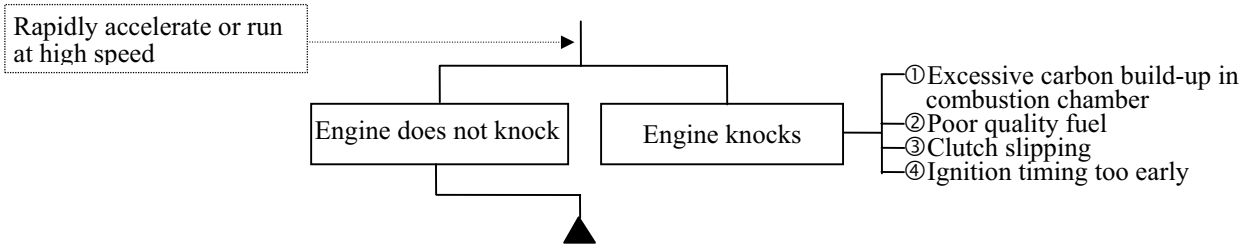
TROUBLESHOOTING (XCITING 500 AFI/250 AFI)

ENGINE WILL NOT START OR IS HARD TO START

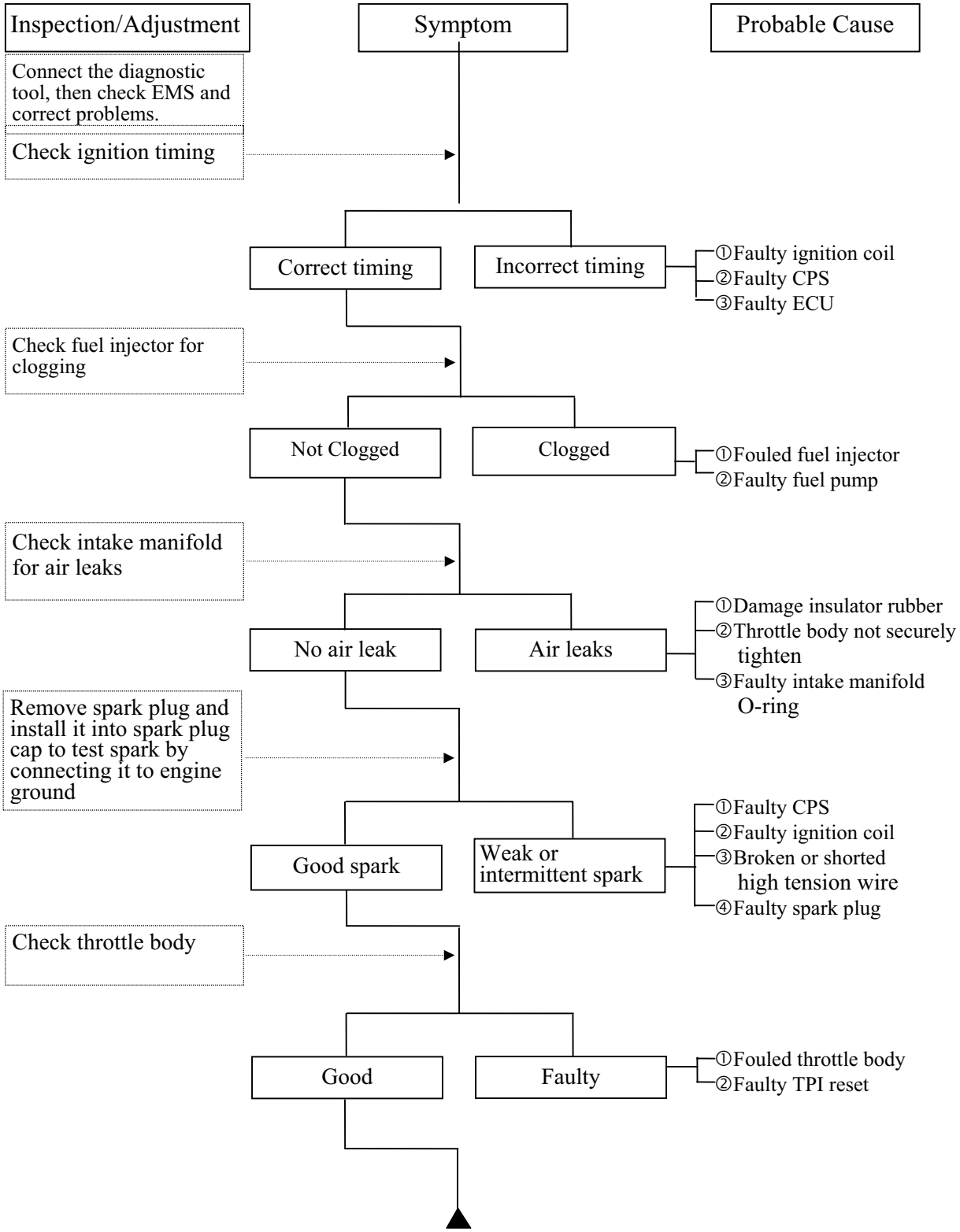

Inspection/Adjustment
Symptom
Probable Cause
1. Make sure engine stop switch is ON.
2. Put the side stand up.
3. Connect the diagnostic tool, then check EMS and correct problems.
Fuel reaches fuel injector
Fuel does not reach fuel injector
①Empty fuel tank
②Clogged fuel pump filter
③Faulty fuel pump
④Faulty fuel cut-off relay
⑤Cracked fuel hose
Remove spark plug and install it into spark plug cap to test spark by connecting it to engine ground
Spark jumps
Weak or no spark
①Faulty spark plug
②Fouled spark plug
③Faulty ignition coil
④Faulty CPS
⑤Broken or shorted ignition coil
⑥Broken or shorted CPS
⑦Faulty ignition switch
Remove the fuel injector, start the starter motor to check fuel injector operation.
Fuel supply
No fuel supply
①Faulty fuel injector
②Clogged fuel injector
③Faulty ECU
Test cylinder compression
Normal compression
Low or no compression
①Starter motor idles but crankshaft does not rotate
②Valve clearance too small
③Improper valve and seat contact
④Worn cylinder and piston rings
⑤Blown cylinder head gasket
⑥Flaws in cylinder head
⑦Seized valve
⑧Improper valve timing

ENGINE LACKS POWER

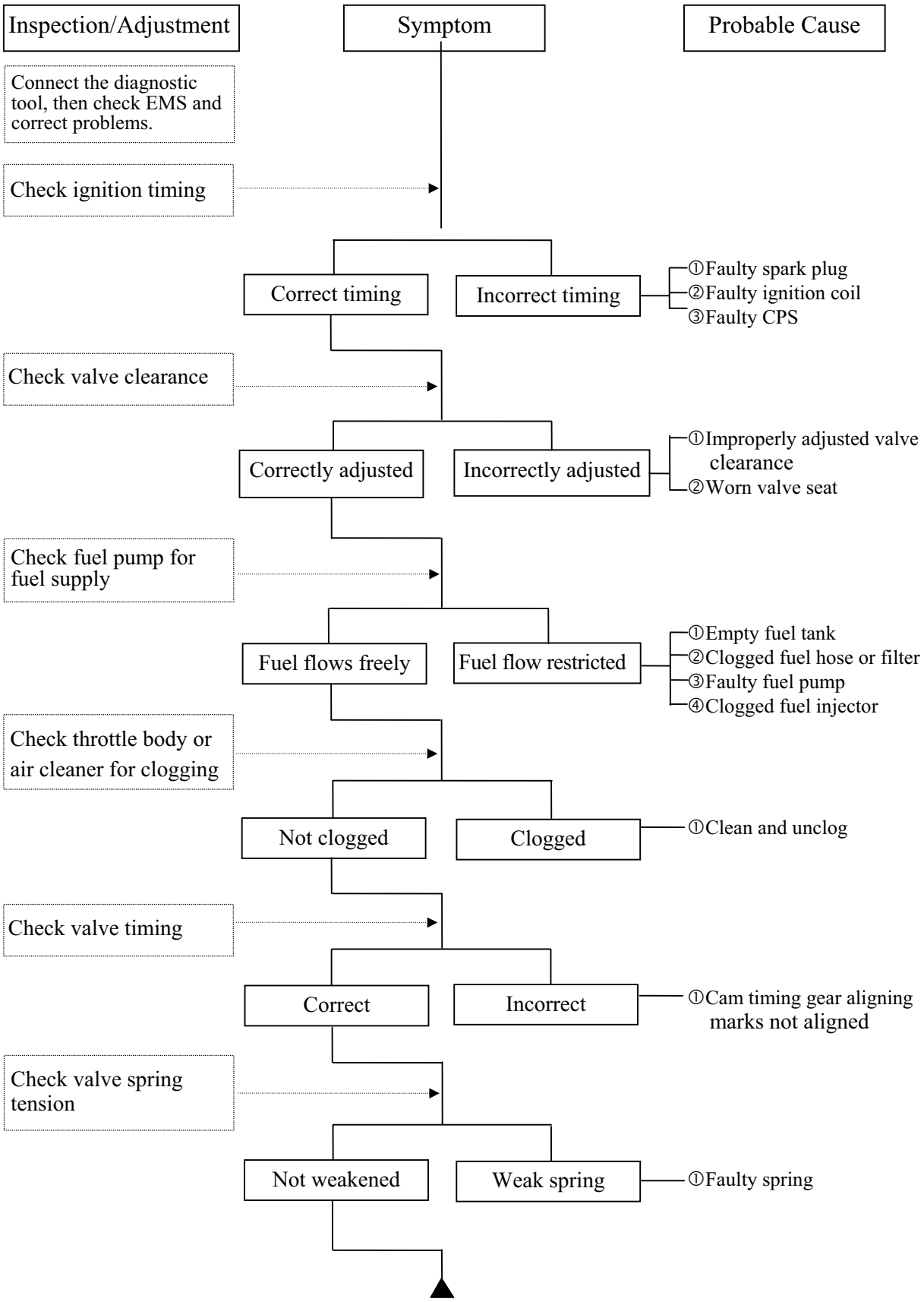



Rapidly accelerate or run at high speed
Engine does not knock
Engine knocks
①Excessive carbon build-up in combustion chamber
②Poor quality fuel
③Clutch slipping
④Ignition timing too early

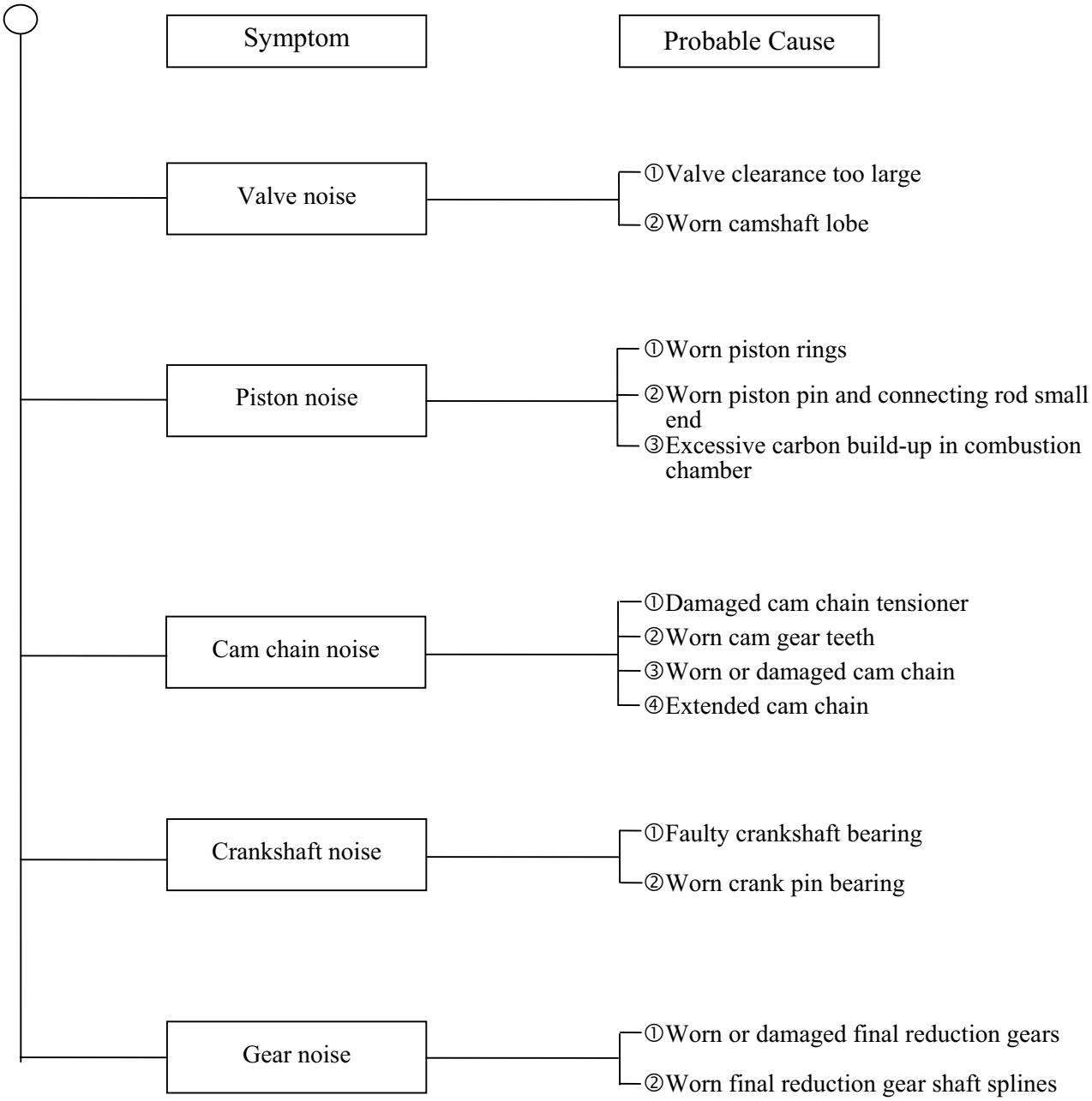
POOR PERFORMANCE (ESPECIALLY AT IDLE AND LOW SPEEDS)



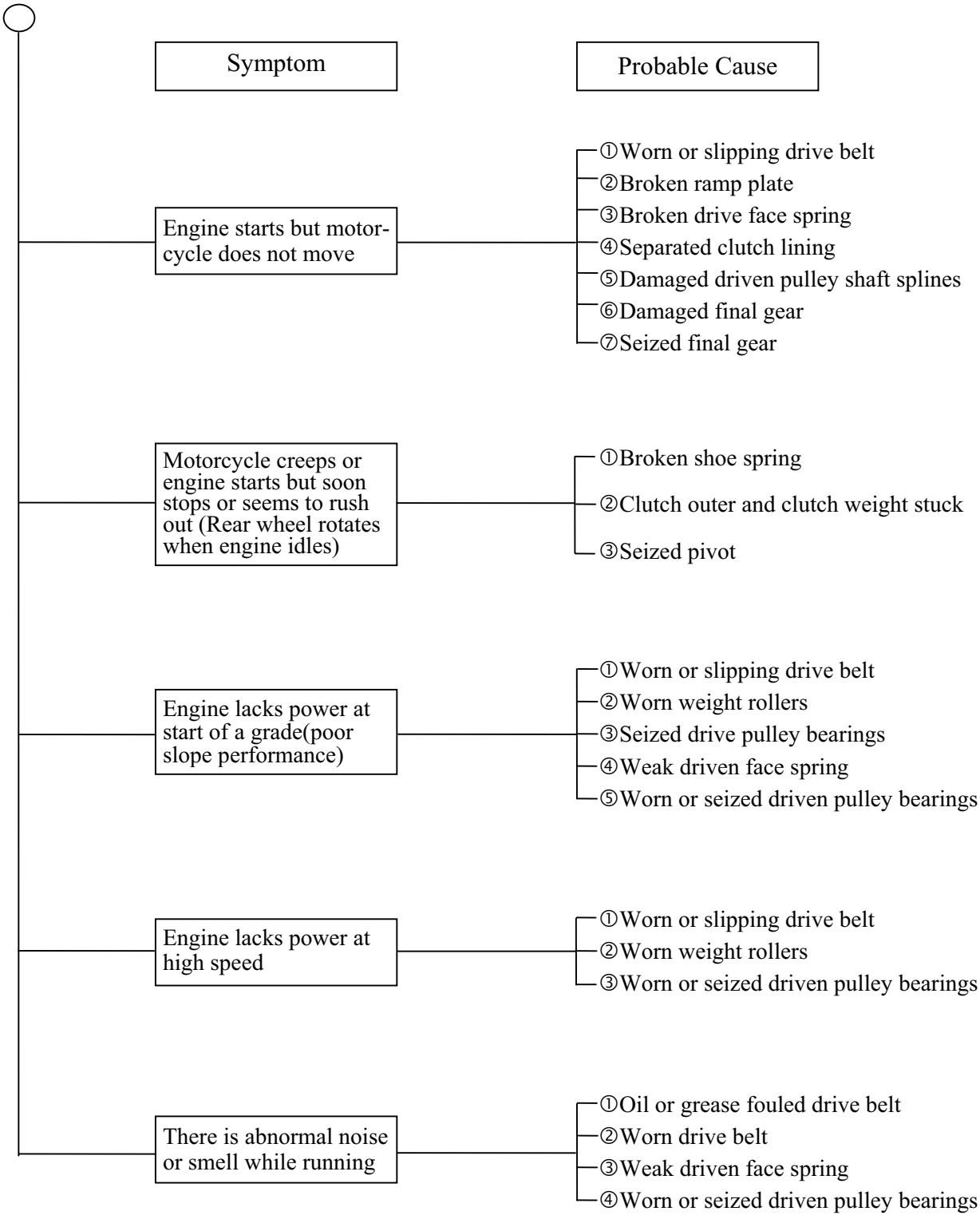
POOR PERFORMANCE (AT HIGH SPEED)



ENGINE NOISE

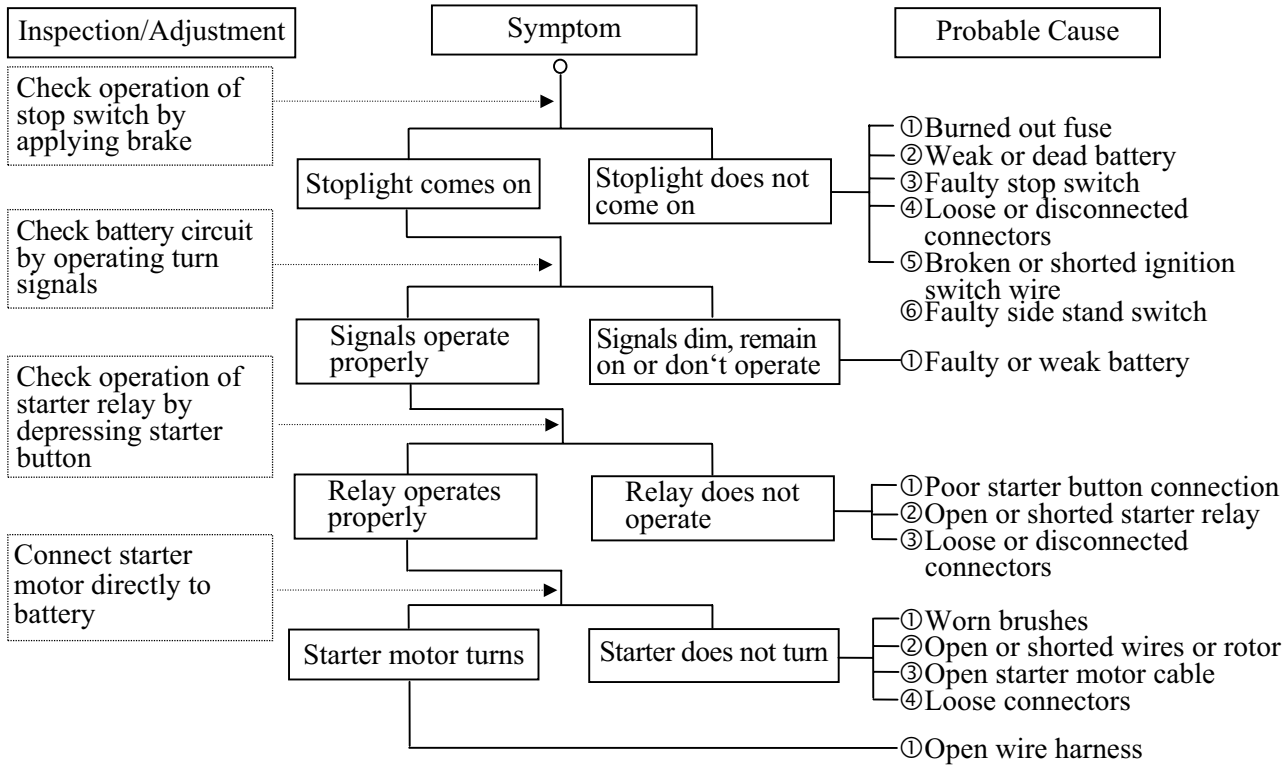


CLUTCH, DRIVE AND DRIVEN PULLEYS

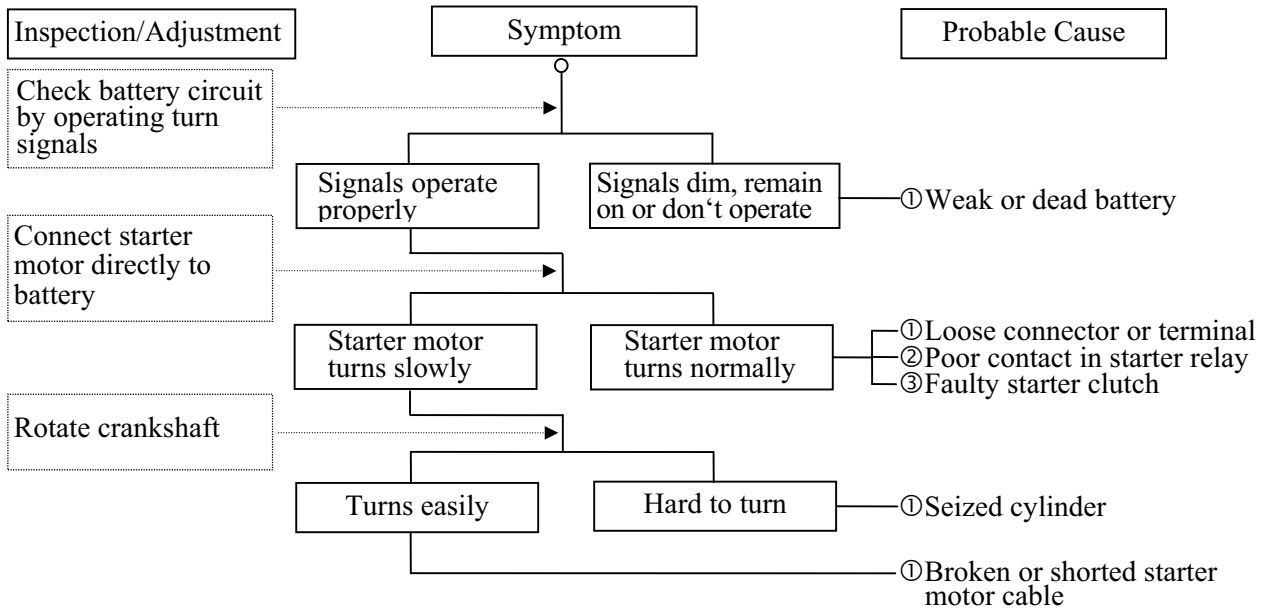

Symptom
Probable Cause
Engine starts but motorcycle does not move
①Worn or slipping drive belt
②Broken ramp plate
③Broken drive face spring
④Separated clutch lining
⑤Damaged driven pulley shaft splines
⑥Damaged final gear
⑦Seized final gear
Motorcycle creeps or engine starts but soon stops or seems to rush out (Rear wheel rotates when engine idles)
①Broken shoe spring
②Clutch outer and clutch weight stuck
③Seized pivot
Engine lacks power at start of a grade(poor slope performance)
①Worn or slipping drive belt
②Worn weight rollers
③Seized drive pulley bearings
④Weak driven face spring
⑤Worn or seized driven pulley bearings
Engine lacks power at high speed
①Worn or slipping drive belt
②Worn weight rollers
③Worn or seized driven pulley bearings
There is abnormal noise or smell while running
①Oil or grease fouled drive belt
②Worn drive belt
③Weak driven face spring
④Worn or seized driven pulley bearings

STARTER MOTOR

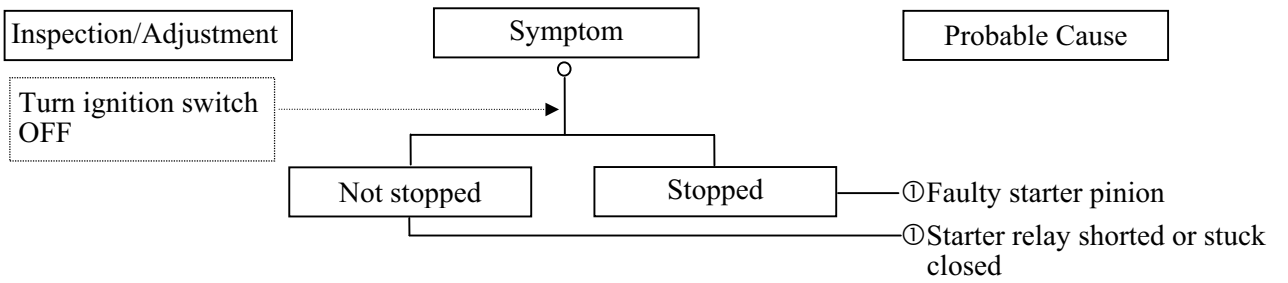
1. Starter motor won‘t turn


Inspection/Adjustment
Symptom
Probable Cause
Check operation of stop switch by applying brake
Stoplight comes on
Stoplight does not come on
①Burned out fuse
②Weak or dead battery
③Faulty stop switch
④Loose or disconnected connectors
⑤Broken or shorted ignition switch wire
⑥Faulty side stand switch
Check battery circuit by operating turn signals
Signals operate properly
Signals dim, remain on or don‘t operate
①Faulty or weak battery
Check operation of starter relay by depressing starter button
Relay operates properly
Relay does not operate
①Poor starter button connection
②Open or shorted starter relay
③Loose or disconnected connectors
Connect starter motor directly to battery
Starter motor turns
Starter does not turn
①Worn brushes
②Open or shorted wires or rotor
③Open starter motor cable
④Loose connectors
①Open wire harness

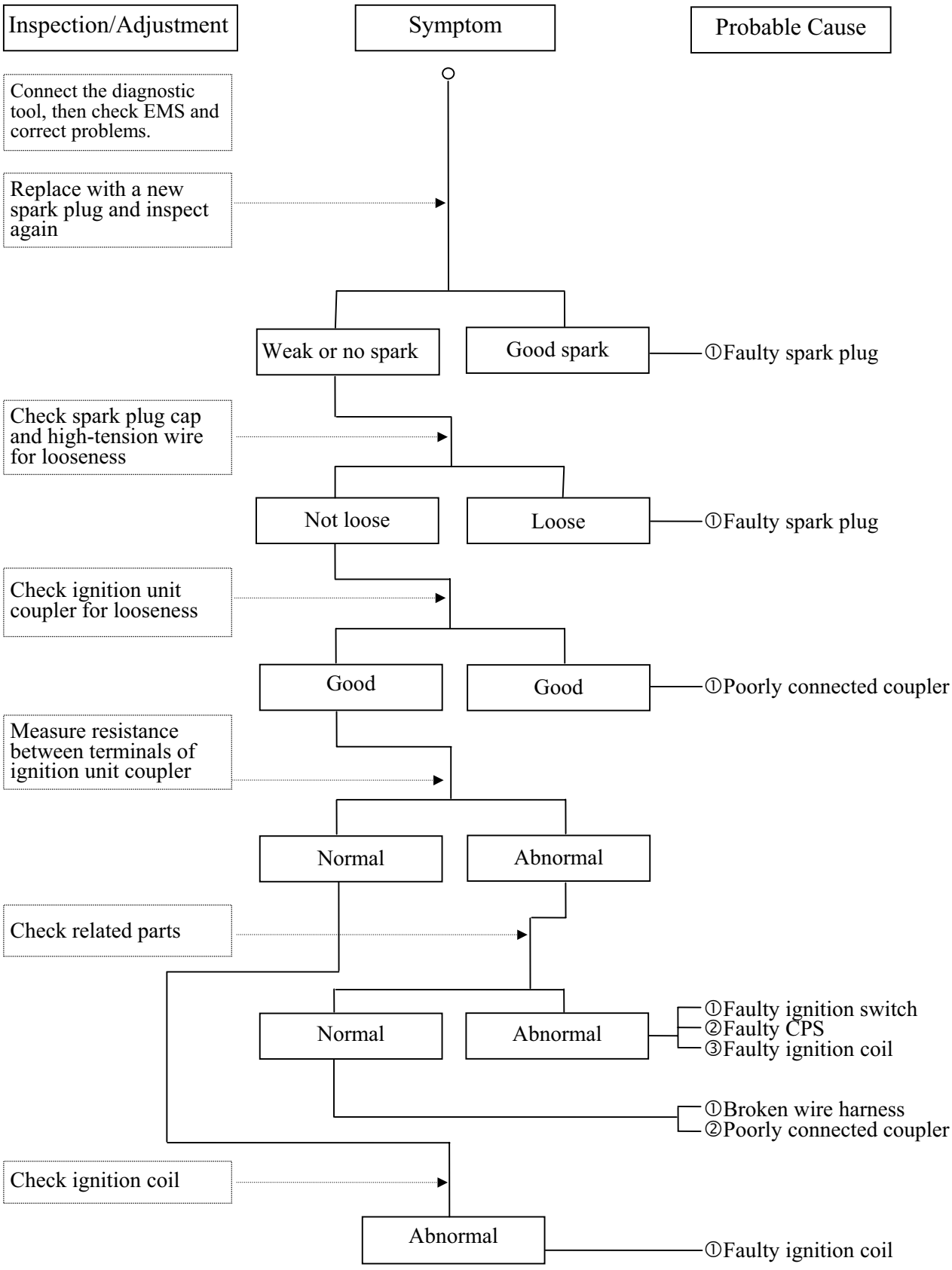
2. Starter motor turns slowly or idles



3. Starter motor does not stop turning

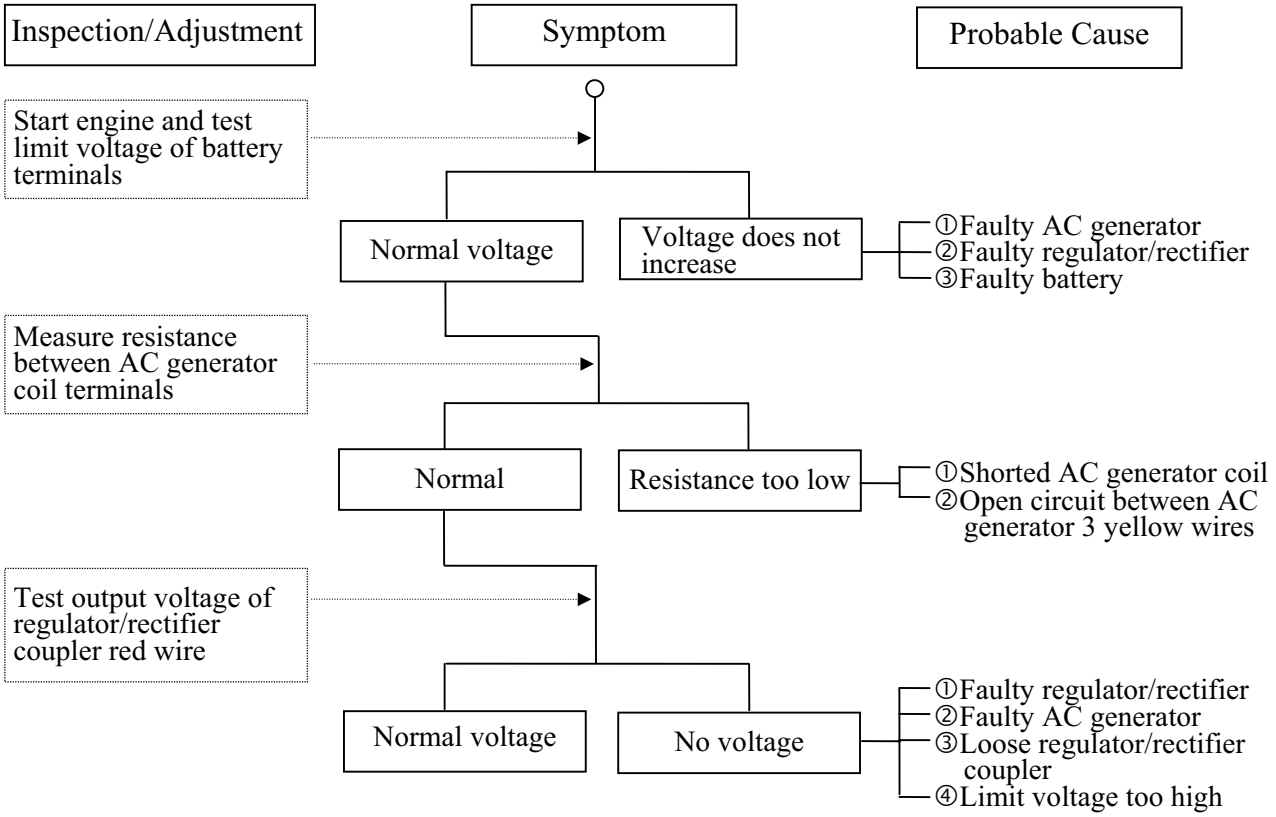


NO SPARK AT SPARK PLUG

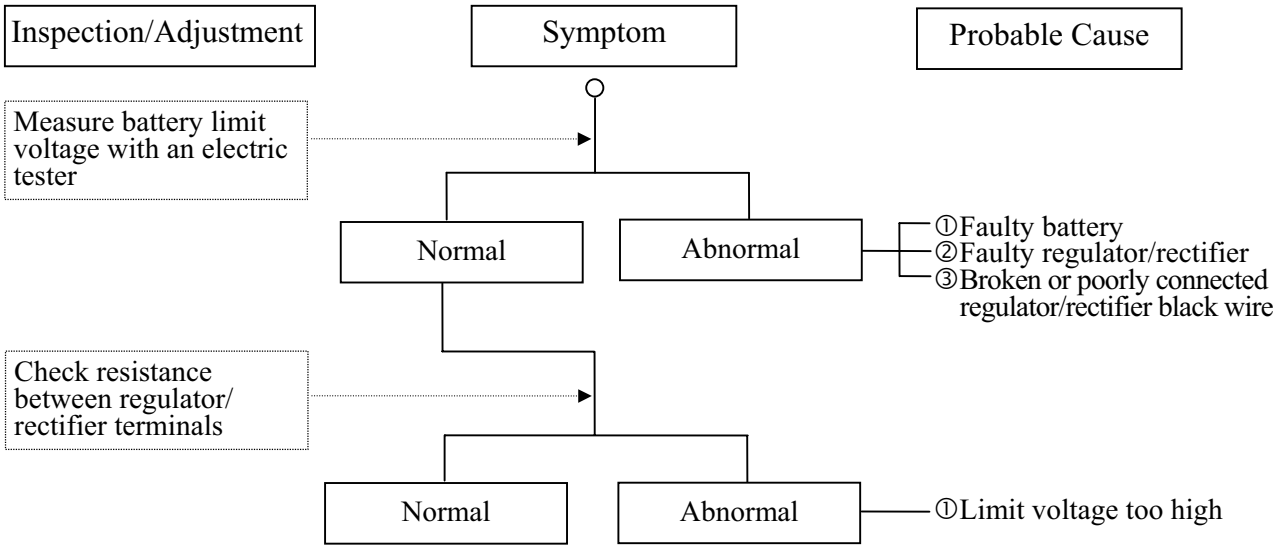


POOR CHARGING (BATTERY OVER DISCHARGING OR OVERCHARGING)

Undercharging

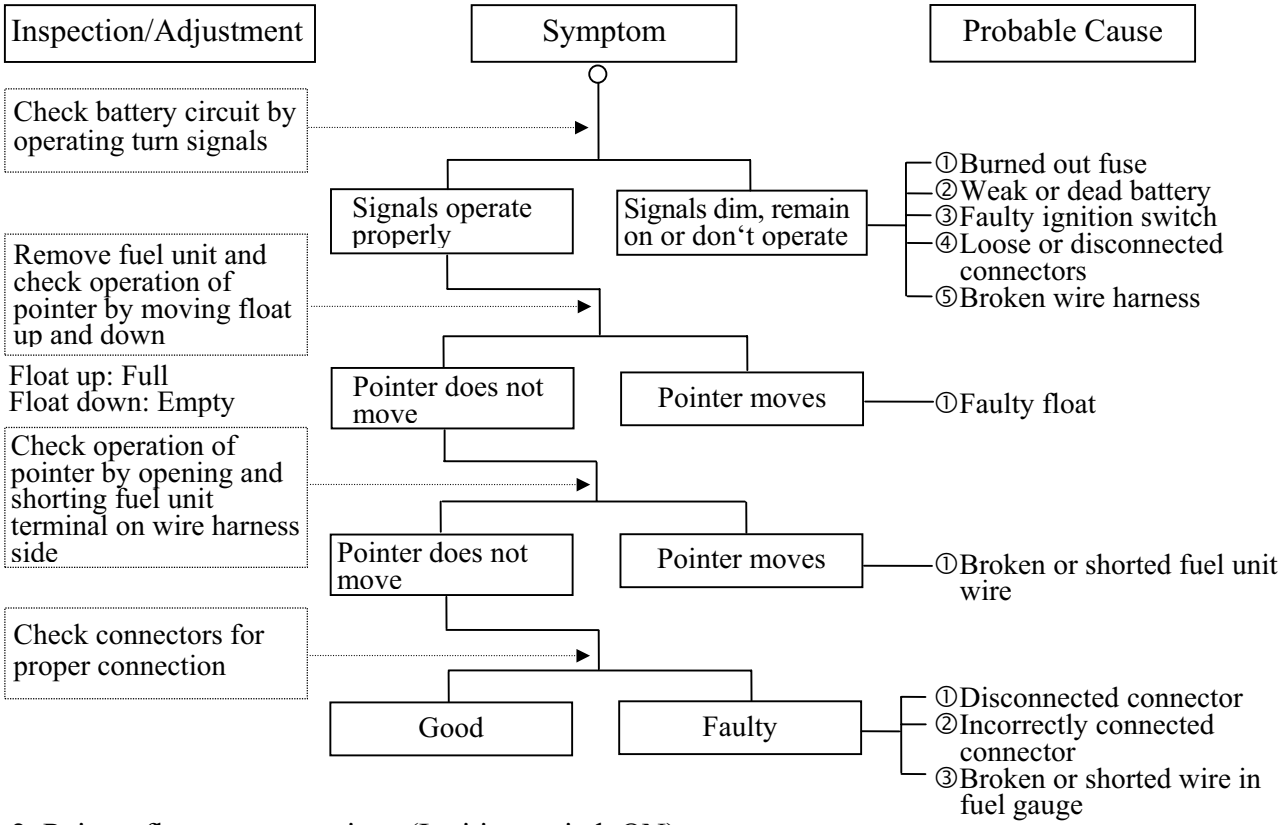


Overcharging

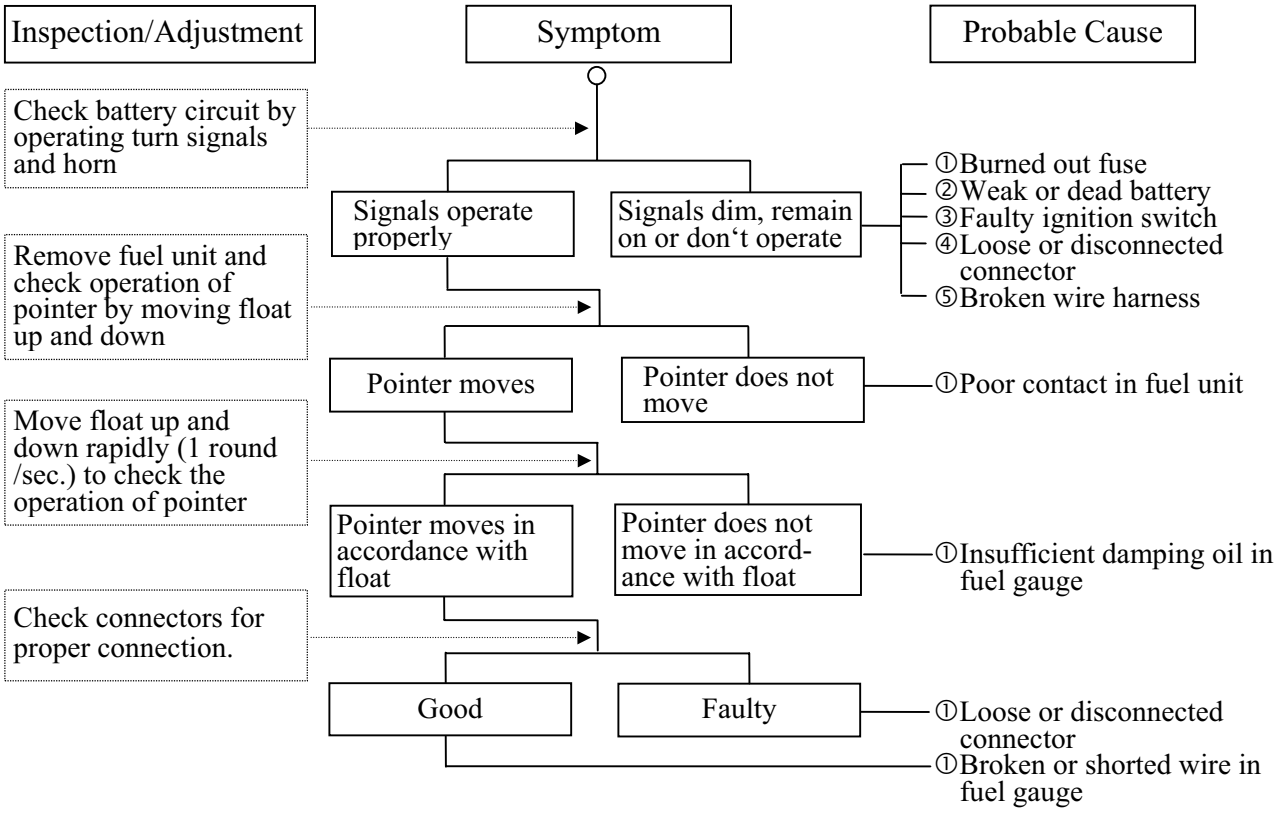


FUEL GAUGE

1. Pointer does not register correctly (Ignition switch ON)


Inspection/Adjustment
Symptom
Probable Cause
Check battery circuit by operating turn signals
Signals operate properly
Signals dim, remain on or don't operate
①Burned out fuse
②Weak or dead battery
③Faulty ignition switch
④Loose or disconnected connectors
⑤Broken wire harness
Remove fuel unit and check operation of pointer by moving float up and down
Float up: Full
Float down: Empty
Pointer does not move
Pointer moves
①Faulty float
Check operation of pointer by opening and shorting fuel unit terminal on wire harness side
Pointer does not move
Pointer moves
①Broken or shorted fuel unit wire
Check connectors for proper connection
Good
Faulty
①Disconnected connector
②Incorrectly connected connector
③Broken or shorted wire in fuel gauge

2. Pointer fluctuates or swings (Ignition switch ON)


Inspection/Adjustment
Symptom
Probable Cause
Check battery circuit by operating turn signals and horn
Signals operate properly
Signals dim, remain on or don't operate
①Burned out fuse
②Weak or dead battery
③Faulty ignition switch
④Loose or disconnected connector
⑤Broken wire harness
Remove fuel unit and check operation of pointer by moving float up and down
Pointer moves
Pointer does not move
①Poor contact in fuel unit
Move float up and down rapidly (1 round /sec.) to check the operation of pointer
Pointer moves in accordance with float
Pointer does not move in accord-ance with float
①Insufficient damping oil in fuel gauge
Check connectors for proper connection.
Good
Faulty
①Loose or disconnected connector
①Broken or shorted wire in fuel gauge

STEERING HANDLEBAR DOES NOT TRACK STRAIGHT

Symptom	Probable Cause
	(Front and rear tire pressures are normal)
Steering is heavy	①Steering stem nut too tight ②Broken steering steel balls
Front or rear wheel is wobbling	①Excessive wheel bearing play ②Bent rim ③Loose axle nut
Steering handlebar pulls to one side	①Misaligned front and rear wheels ②Bent front fork

POOR SUSPENSION PERFORMANCE

Symptom	Probable Cause
	(Front and rear tire pressures are normal)
Suspension is too soft	①Weak shock spring ②Excessive load ③Shock damper oil leaking
Suspension is too hard	①Bent fork tube or shock rod
Suspension is noisy	①Fork tube and slider binding ②Fork spring and slider binding ③Damaged shock stopper rubber ④Loose steering stem nut

POOR BRAKE PERFORMANCE

Symptom	Probable Cause
Soft brake lever	①Worn brake linings ②Foreign matter on brake linings ③Rough brake drum contacting area
Hard brake lever	①Worn brake linings ②Foreign matter on brake linings ③Rough brake drum contacting area
Hard to brake	①Worn brake linings ②Worn brake cam contacting area on
Poor brake performance	①Worn brake linings ②Foreign matter on brake linings
Brake squeaks	①Sluggish or elongated brake cables ②Brake shoes improperly contact ③Water and mud in brake system ④Oil or grease on brake linings